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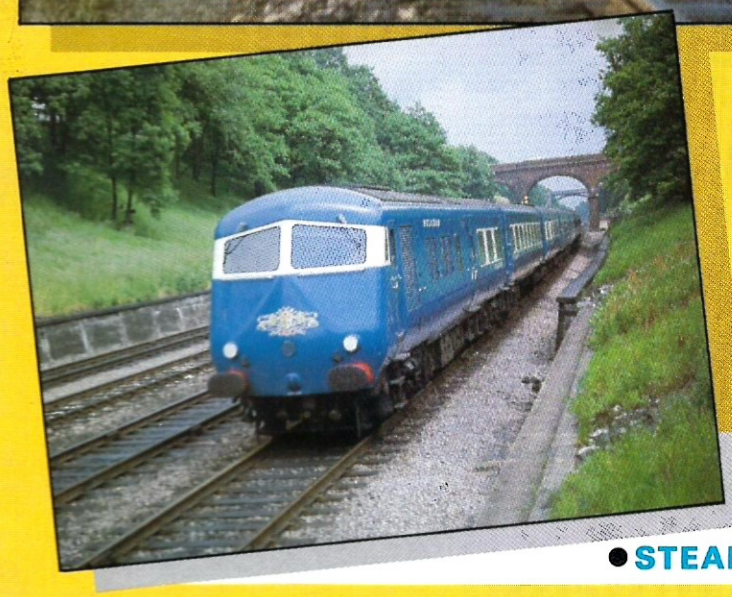
Back Track

RECORDING BRITAIN'S RAILWAY HISTORY



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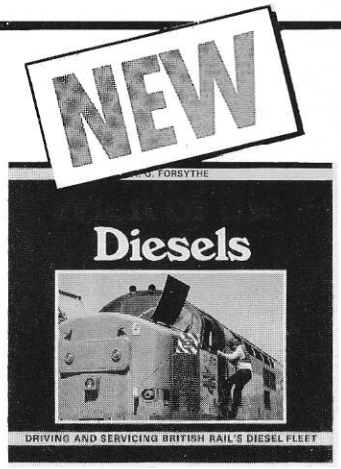

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By H. G. Forsythe

In recent years, many thousands of photos of British Rail diesel locomotives have appeared in print. Comparatively few, however, have showed their operation from the point of view of the men who drive and service them.

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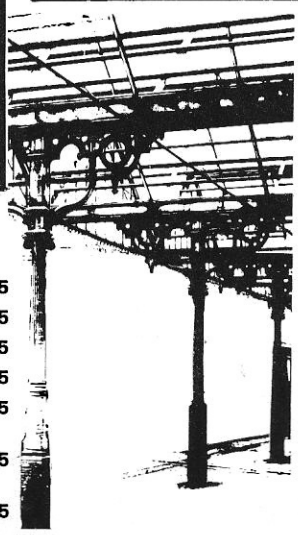

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BackTrack

RECORDING BRITAIN'S RAILWAY HISTORY

Vol.3 No.1 Spring 1989

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CHANGE OF DRIVER

This issue of BACKTRACK, the tenth, is my last. A brief period in the chair, no doubt, but brought to an end by my sale of the magazine and the publishers, Atlantic.

The disciplines and enthusiasms required to create and launch a project are not necessarily those which are right to develop and extend it, and circumstances dictate that I leave railway publishing for pastures new.

The new editor of BACKTRACK, and owner/publisher of Atlantic, is David Jenkinson. He will need little introduction to many readers; recently retired from his post as Head of Research & Education at the National Railway Museum, David is one of Britain's leading railway historians, with many books and articles to his credit. He has also edited that excellent journal, *Railways South East*. In David's hands, Atlantic and BACKTRACK will surely thrive. I wish him well.

THANK YOU

I trust readers will bear with me while I thank all those who have participated in the development of Atlantic railway publications. I am particularly grateful to all authors and photographers, especially those who supplied irreplaceable colour. Just as important and appreciated are those involved in production; thanks to Kathy Langdon, whose typesetting has been outstanding, to Roger Davies for overseeing printing and production, Ann Williams for subs, correspondence, packing and 'can-do' reliability, and Derek Huntriss, Atlantic's book editor who will ably fill the role under new ownership.

On the sales side, I am indebted to Ted Hurworth, latterly MD of BACKTRACK's original distributors, Argus; his faith in the project encouraged me to ignore teeth-sucking scepticism in the railway trade and revive the magazine after abandoning the idea at least once. Special thanks too, to Bill Lucas, Dave Howley and Chris Tankard, who sold more books than most.

I pay particular tribute to my friend Richard Riley. In the last ten years his encouragement, advice and contributions — promptly and generously given — have been invaluable and greatly appreciated. My thanks to Richard.

When I made my first faltering steps with Atlantic books, some ten years ago, one phrase heard widely in railway publishing was "the enthusiast will buy anything". I despised this implication that low standards and high prices were acceptable, and still do. But you don't hear that phrase much nowadays, not least because some of those who once used it freely have gone out of business, sunk by their own cynicism. This is due partly to the good sense of the enthusiast, but also to the skills of the 'new wave' railway publishers. I would like to acknowledge the compulsive enthusiasm of Peter Fox of Platform Five, Jane & Nigel Harris of Silver Link, and Paul Karau of Wild Swan; they have all helped raise the standards of British railway publishing.

The most important group I must thank is also the largest — the readers of Atlantic publications. Without you, the job loses its point, its pleasure and its means to prosper.

Finally, behind every good man there is supposed to be a good woman. I am fortunate in having four. I thank my wife Teresa, daughters Jenny and Anna, and mother, for putting up with me over the last decade when, as editor and publisher, I was permanently (and sometimes detrimentally) pre-occupied with things that happened long ago.

Nigel Trevena

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Last of steam on the Eastern

TOP: The changing scene at Liverpool Street, May 1962. The station pilot, 0-6-2T 69725 (LNER Class N7/3) awaits its next duty while an unidentified Brush Type B diesel-electric heads the disposal train which regularly relieved the Great Eastern Hotel of its accumulated rubbish. Photo: Roy Hobbs

BOTTOM: The LNER J15 Class (GER Y14) 0-6-0 was introduced in 1883, construction continuing until 1913 when there were 289 in service. Used on main line goods trains until superseded by larger engines they became the 'maids of all work' on GE lines.

In May 1960, R. F. Harvey, Locomotive Shedmaster at Norwich, enhanced the appearance of 65469 by cutting off the top of its chimney and welding on a new rim giving it a stovepipe appearance. 65471, also at Norwich, was similarly treated but on withdrawal in 1960 its chimney was transferred to 65462, which today carries it on the North Norfolk Railway. 65469 was withdrawn in August 1962, only a month before the end of steam on GE lines; it was photographed on Norwich shed, 31st May 1960. Photo: R. C. Riley

The Great Eastern in the 1930s

One of the LNER's major constituents, in the years following the Grouping

STANFORD JACOBS

In the summer of 1933, the Great Eastern Section of the LNER looked much as it had done ten years earlier when it was truly the Great Eastern. Certainly there were changes — loco numbers had had 7000 added to them, the 1500s (LNER Class B12) had been painted green, GE type number plates had disappeared with numbers painted on tank or cab side, and a few standard types had made their appearance. But there was still the sound of Westinghouse pumps thrashing away, the particular aroma of hard Yorkshire coal, and the distinctive GE signals — many still with their huge McKenzie and Holland finials — to be seen, heard and smelt.

Locomotives and traffic

Due to severe weight restrictions, there were very few LNER standard locos: only the B17 Sandringhams and the J39 0-6-0s had appeared in any quantity, and, because of small turntables, the B17s had GE pattern tenders, complete with side chains. The first 16 B17s had been fitted with the Westinghouse brake, so the characteristic GE sound could still be heard. In the London area, the production of the Stratford designed 0-6-2T, classed N7, was continued in the early days of the LNER and the class was multiplied until it totalled 141, nearly all on the GE section.

A few 'foreigners' had made tentative appearances, but of these, only some ex GN K2 2-6-0s, again fitted with the Westinghouse brake, and some of the ubiquitous 04s, had remained on the section. J21s and J27s from the North Eastern had made spasmodic appearances but most of them had returned north in the early 1930s.

Traffic, therefore, was still largely in the hands of Great Eastern locos. Although numbers of the B12s had been transferred to the Great North of Scotland section, those remaining took their fair share of working the expresses, turn and turn about with the B17s. Some of the B12s had been fitted with the French ACFI feed water heaters, with the 2 mixer drums mounted on top of the boiler between the chimney and the dome; whether this fitting produced any marked economies is somewhat doubtful, but it certainly disfigured a very handsome class of loco. The Claud Hamilton 4-4-0s still took a considerable part in express working, especially at summer weekends, and all the various types were still in existence — slide and piston valve, small and large boiler, and small and extended smokebox.

Stopping and branch line passenger workings were in the hands of the D13s and the E4s. The D13s were rebuilt from a class of express 2-4-0s introduced in the 1890s. Many of these were rebuilt with a large highpitched boiler but still as 2-4-0s: as such, they had a decidedly top-heavy appearance and were nicknamed 'Humpty-Dumpties'. The instability was cured by fitting a leading bogie, thus producing a useful loco for secondary work. Many of the rebuilds were at Norwich, working to Yarmouth and Lowestoft, while others were at

ABOVE: Class D15/2 8868, in its usual highly polished state, passing Chesterton Junction with a stopping train from Cambridge to St Ives and March. From here, it would work back to its home shed of Kings Lynn with a further train via Wisbech, joining the Ely — Kings Lynn line at Magdalen Road. The signal is a typical later GE type with a tall post so that it may be seen over the girders of the River Cam bridge. The up distant signal for Barnwell Junction is mounted on the same post. Photo: G. H. Soole/NRM

A typical GE section express of the early 1930s passes Stratford on the down main. The loco is class B12/1 8510 in LNER green, disfigured by the ACFI feed water heating apparatus. The first two coaches are typical GE corridor coaches and most of the rest of the train is made up of similar stock. The projecting signal, on the left of the photo, is for the up through line; the old Stratford Middle Junction box, with 165 levers, stood on this platform, just behind the milk churns. The spur line to the Low Level, used by Fenchurch Street to North Woolwich trains, passed behind the platform. Photo: Lens of Sutton

March for services to Cambridge via St Ives.

For the numerous rural branches on the system, the 'Intermediate' 2-4-0s — LNER class E4 and the corresponding tank version F3 — were the usual locos, helped out by those members of class J15 fitted with continuous brakes. The other classes of 2-4-2 tanks were virtually confined to the extended London area, although an F5, 7105, was used at Cambridge as station pilot for a year, while the last G4 0-4-4T, 8123, ended its days as the passenger pilot at March. In the early 1930s, some of the Clayton rail cars were used in the Norwich area, but they had all disappeared by 1935.

In 1933, the first of the rebuilt B12s and Clauds made their appearance. The reversion to round top fireboxes was, at first sight, surprising, but the extra size of the boiler and the alterations to the cylinders and valves produced improvements on what were already two very capable classes. The D16/3s, in particular, seemed to be firm favourites and did some excellent work on services north of Cambridge.

It is not generally realised that the coal traffic on the Cambridge main line was then extremely heavy. Traffic was funnelled along the GN&GE Joint line to March from the Nottinghamshire and South Yorkshire coalfields: further traffic was handed over by the Midland at Peterborough. Traffic was remarshalled at these two points and made up into trains mainly for Temple Mills, although some went to the Ipswich and Norwich areas. The traffic was re-sorted at Temple Mills for destinations in East London or to yards on the Southern Railway.

Until 1934, virtually the whole of this traffic was handled by GE 0-6-0s. While the large 0-6-0s of classes J18, J19 and J20 took their share of the work, the mainstay of this traffic was the 90 J17s: the whole of the class, at this time, were stationed either at March or at Peterborough East. Occasional trains were taken by the ex ROD 04s, and, at times of loco shortage, the J15s were used. The abbreviated cabs on the J15s were a poor substitute for the double wide window cabs, similar to those on the Clauds, on the J17s.

It is worth noting that nearly all the locomotives used on the March-Temple Mills freight service had steam brakes and three link couplings only; it was not until the end of the war that the J17s started to be fitted with screw couplings and vacuum brakes. This is all the more remarkable because the section between Whittlesford and Bishops Stortford is quite heavily graded and considerable skill was needed by the train crews to prevent breakaways. The traffic was so heavy that running loops were put in in early LNER days: between March and Cambridge, the preferred route for the coal traffic was via Chatteris and St Ives, always known as the 'Loop'.

Whitemoor Yard at March was opened in the early 1930s and improved the operation of the coal traffic immensely. The traffic was, very largely, conveyed in private owner wagons; these all required sorting to get them back to their rightful owners, and the hump yards at Whitemoor speeded up the operation. On many of the locos used on the coal trains, a small red diamond was painted above the number; this signified that the loco had sufficient clearance to pass over the retarders at Whitemoor. For hump work at Whitemoor, two of the GC 0-8-4Ts were sent down from Wath. They were soon to be joined by two new locos, built to the same design, but with detail alterations and fitted with boosters.

At last, in 1933, new motive power appeared for the March-Temple Mills service. Eight class 02 2-8-0s were built at Doncaster, 2953 to 2961, and were so successful that a further eight appeared in 1936, 2430 to 2437. The 25 GN 02s, 3477 to 3501, and the prototype 3461 had, for many years, worked the heavy coal traffic between New England and Ferme Park, Hornsey, with success, so a well proved design was provided for the March-Temple Mills run. The LNER-built locos had side window cabs as compared with the spartan GN cab provided with the original locos. They were also provided with the small very high pitched Doncaster whistle — not nearly so pleasant as the mellow whistles of the GE or the GC.

With the building of N7 0-6-2 tanks for the London suburban services, the 0-6-0 tanks, which had maintained the services for so long, found new employment all over the Great Eastern as shunting tanks. There were enough to spare to help out other sections of the LNER and they were to be found in Scotland and on Merseyside as well. For light shunting, a few Sentinel locos were allocated to the GE section, mainly used on specialised jobs such as shunting the quays at Yarmouth and Lowestoft.

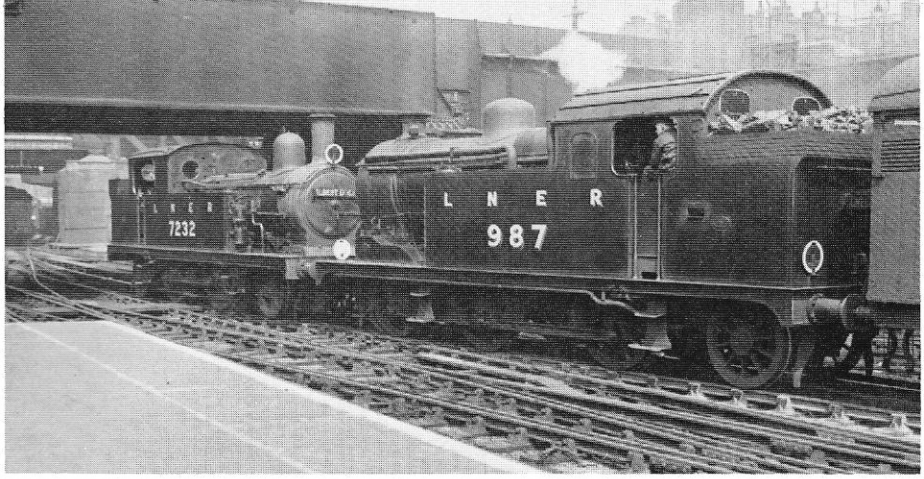
● Routes and signalling

Although East Anglia is generally considered to be a flat part of the UK, it certainly was not as far as the Great Eastern lines were concerned. Only those lines lying north of Cambridge and west of the Ely-Kings Lynn and Ely-Brandon lines were laid through flat

country, and even then, gradients of up to 1/100 were necessary to gain height to cross the major rivers and fen drains. Elsewhere, gradients were steep but short: the gradient profiles were often referred to as 'sawtooth'. Both the Ipswich-Norwich and the East Suffolk lines were steeply graded, as was the line on to Cromer: this makes the achievement of the Edwardian Norfolk Coast Express all the more remarkable.

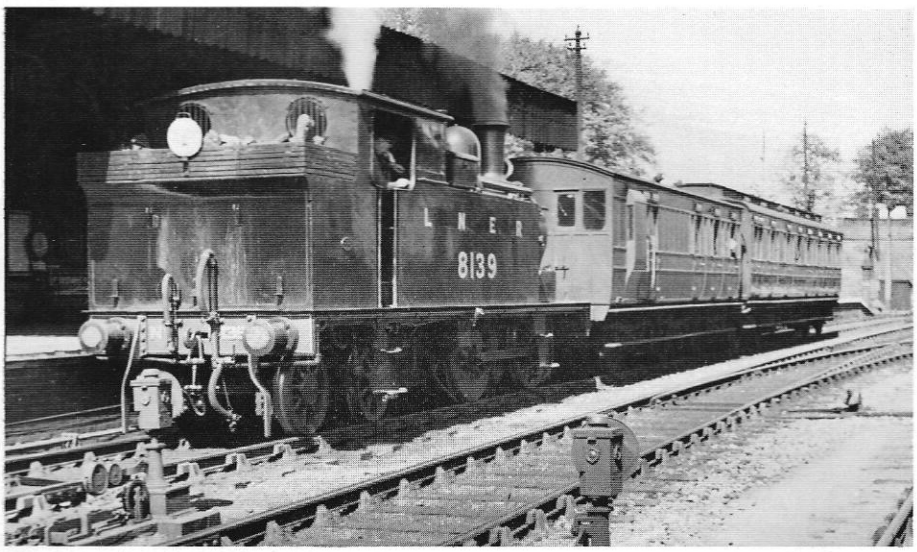
Level crossings were frequent all over the system; where a signal box was not provided, the gatekeeper's hut had a repeater bell for the bell circuit between the two adjacent boxes, so that all bell signals were heard twice. Usually, a 2 lever frame controlled distant signals to protect the gates: the GE used to distinguish their distant signals by a white light, in the form of a fishtail, alongside the red or green indications. By the 1930s, the distants had been painted yellow and the spectacles adjusted to suit, but it was still possible to see the extended casting on the signal posts where the fishtail indicator had been attached.

At some stations, where the signal box was at the other end of the platform from the level crossing, the gates would be worked manually by the station staff but locked from the box. It was usual to provide an electric bell circuit between the box and the station; codes would be used to indicate up or down trains. There was also the special case of Kings Lynn Junction. At this box, lines coming from the terminal passenger station were joined by lines from the goods yard. Immediately, the lines split into three routes for Hunstanton, for Swaffham, and for Ely and the south, including the M&GN. At the actual point of junction, there was a level crossing for the road used for through traffic to avoid the town centre. The resulting chaos, especially on a bank holiday, can be imagined, with a very heavy traffic for Hunstanton having to



ABOVE: On 30th May 1935, F5 7232 and N7 987 stand at Liverpool Street. The N7s, introduced just after the first world war, were very free runners, despite their 4'11" wheels; the LNER built well over 100 of them in the early days of grouping to augment the original 22 examples inherited from the GE. Both locos carry the white rimmed and purple centrered discs, used for route indicating in the suburban area. 7232 carries a destination board for Albert Dock; this train would have used the spur at Stratford to the low level lines and branched from the North Woolwich line at Custom House on to the Port of London Authority lines. Photo: R. C. Riley collection

BELOW: Class F5 2-4-2T 7233, carrying its pre-1946 number, arrives at Enfield Town on an LNER-built rake of 2 Quadart sets. The headcode of 1 white and 1 purple disc was used for Enfield Town trains; the other F5 tank, in the background, displays the same headcode. The vacuum brake pipe, on the front of 7233, is not on its mount so the train is Westinghouse braked. Photo: J. G. Dewing/R. C. Riley collection



One of the last two survivors of Class G4 — 0-4-4 tank 8139 — stands at Saffron Walden on the branch train in June 1935, awaiting departure to Audley End. When the G4s were withdrawn, their replacements were 0-4-4 tanks from another railway. Class G5 tanks, ex North Eastern Railway, were transferred for use on this branch. The rake of an ex GE six wheeler and a NE clerestory is an unusual sight. Photo: J. G. Dewing/R. C. Riley collection

be reversed in Kings Lynn station, and all moves needing to block the level crossing at least twice. No wonder a full time crossing keeper was necessary.

With the exception of a very early American power frame in Granary box at Bishopsgate goods yard, and the two British Pneumatic power frames, installed by the LNER at Cambridge in 1926, the whole of the GE signalling was manual, even at extremely busy places like Liverpool Street and Stratford. McKenzie & Holland and Dutton frames were used: the McKenzie frames had the levers at spacings up to 7½ inches, and, occasionally, additional levers were squeezed into the spaces in this type of frame. Dutton frames were to be found anywhere on the system: in fact, the largest Dutton frame ever made was installed at March Whitemoor Junction and survived until 1988.

In the London suburban area, Sykes lock and block was used on the heavily trafficked routes: this was also used in the immediate area of Norwich and between Haddiscoe and Lowestoft. Tyers 1 wire 3 position instruments, similar to those used on the Furness and

North Stafford, were used in the outer suburban area. Elsewhere, Tyers 1 wire 2 position 3 plunger instruments were universal on double lines. By 1933, the instruments had been modified to give the effect of a 3 position instrument for the receiving station; the ringing keys were coloured black, red and white and a metal flap was provided covering either the white or red keys, with a subsidiary flap on the same pivot but only half the size.

The operation of these instruments was as follows. Trains were offered on the black key using standard bell codes. If the train was accepted by the box in advance, the flap was turned to reveal the white key, the train was accepted using the white key and this turned the needle to 'Line Clear'; as the flap was turned, the subsidiary flap was also turned. When 'Train on Line' was sent on the black key by the box in rear, the flap was turned over to reveal the red key. The bell code was acknowledged on this key which turned the needle over to 'Train on Line'. However, when the main flap was turned over, the subsidiary flap remained in position; this was cast with the words 'Train on Line' as a reminder to the signalman that a train was actually in section. When the train arrived, 'Train out of Section' was given on the black key and the auxiliary flap turned so that it lay up against the main flap. As the normal position of the needles showed 'Train on Line', the modification gave the effect of a 3 position instrument at the box in advance but only a 2 position at the box in rear.

With Tyers instruments, there was always a bell for one direction, usually the up direction, and a gong for the other. The bells and gongs were mounted on large wooden boxes, placed horizontally above the block instruments, with the black bell plunger below the block instruments. Separate bells and gongs, with their appropriate plungers, were provided for routing where there were a number of possible destinations; these were also provided where Sykes lock and block was in use.

On single lines, traffic was handled, for the most part, by Tyers No.6 tablets. There was one installation of permissive tablet working between Reedham and Breydon Junction, through Berney Arms, but the other line to Yarmouth Vauxhall via Acle had conventional No.6 tablets. Some branches were worked on staff and ticket: the Mildenhall branch, Audley End through Saffron Walden to Bartlow and the Southminster branch were all worked this way. On the Saffron Walden line, a variation of the Tyers 3 plunger instruments were employed.

There were still large numbers of lower quadrant signals in use all over the system. Many of the McKenzie extra large finials had completely disappeared, or had their tall tapering spikes broken off: the baseplates for the finials remained on the tops of the posts. The bracket signals were varied in their formation — in particular, the down Ely North Junction distant had 3 workable arms at three different levels for Norwich, Kings Lynn and March and also carried the up distant for Ely North Station box. The calling on arms were peculiar to the GE; they took the form of an open lattice rectangular cross, and the spectacle plate was masked to give a light in the form of a cross also.

The Great Eastern signal box was instantly recognisable. Usually built of wood, it had a balcony at the entrance with wooden steps running parallel to the line. New boxes, built after 1923, followed the same general pattern although the frames were normally placed at the back of the box rather than at the front. Where goods loops were installed, the motor points at the remote end of the loop were usually worked by a hand generator: occasionally, signals were worked by the hand generator, too.

Train services

The principal services were from Liverpool Street to Norwich, both via Ipswich and via Cambridge, to Kings Lynn and Hunstanton, and the boat trains to Harwich. There were through expresses to the East Suffolk line, splitting at Beccles to serve Lowestoft and Yarmouth, but the through trains to Cromer, avoiding Norwich, had been abandoned and all trains for North Norfolk reversed at Norwich Thorpe. In comparison with today, there was less importance attached to the Southend and Clacton lines.

Two other services need to be mentioned. The North Country Continental ran between Parkeston Quay and Liverpool CLC. This train carried three portions, as through coaches were detached at March for Peterborough East, Rugby, Coventry and Birmingham NS, and at Lincoln for Doncaster and York. This service gave rise to the longest through working of a GE section loco over the 202 miles between Ipswich and Manchester Central: the working was shared

Approaching Trumpington box, a mile south of Cambridge, class F3 8069 hauls a train for Haverhill and Long Melford in 1936. Trumpington controlled the exit and entry for the up and down goods loops seen in the photo; the main lines were the centre pair of tracks. In the background, there were sidings laid for the Royal Agricultural Show in 1921: beyond these, it is just possible to see the LNW line to Bedford and Bletchley. Photo: J. G. Dewing/R. C. Riley collection

ABOVE: Class B17 *Lambton Castle* **on the Flushing Continental beyond Shenfield. Second only in importance to the Hook Continental, this train warranted the use of Gresley stock and Pullman cars. An early 1930s view.** Photo: R. C. Riley

RIGHT: Standing in the carriage sidings at the south end of Cambridge on 24th August 1938, the Mildenhall branch train, hauled by E4 7490, has been reduced to three six-wheelers and a van. This loco has now been restored to GE condition and is preserved at the NRM at York. Cambridge South box is in the background, with a rear view of a GN Atlantic standing on the through road. Photo: Rev. A. V. W. Mace

between Ipswich and Gorton sheds, and one of the B12s was stationed at Gorton for this turn. When the B17s were introduced, 2816 and later 2834 were sent to Gorton for this working and were rarely to be seen on any other turn. The other express service over the GE&GN Joint line was the last survivor of the GE service to York via what they advertised as 'The Cathedrals Route'. This was a Sundays only train leaving Liverpool Street about 9.30. Incidentally, I was intrigued to find that the old name for the GE was still in use on the GN north of Doncaster as late as the early 1960s, when the through train from Colchester to York was referred to as the 'Swedey'.

Although some standard LNE Gresley coaches had appeared, particularly on the Harwich boat trains, the expresses on the Cambridge line were largely made up of the old GE corridor stock. These had the typically moulded panels still to be seen on the GE director's saloon, today owned by the Hon. William McAlpine and quite often to be seen on steam specials. For their capacity, they had a very low tare weight and a Claud Hamilton 4-4-0 would cheerfully tackle a train of 12 or 13 of these coaches. The branch trains had a mixture of stock; a number of semi-corridors — both with clerestory and elliptical roofs — had been transferred from the North Eastern area and were to be found in most branch formations. The Mildenhall branch train set was formed from five 6 wheelers, with Westinghouse brakes only, and with corridors so that the guard could issue 'bell-punch' tickets for passengers joining at the halts on this line. A set of steps, built into one of the coaches and operated from the Westinghouse air line, was required because the halts were at ground level.

On the other hand, some of the worst passenger stock in the country was to be found on the London suburban services. Designed to carry the greatest possible number of people, they were converted from GE four and six wheel stock with an extra piece inserted into the middle of the compartment so that, in theory, six people a side could be seated. The partitions between compartments were not carried up to the roof so it was possible to see down the whole length of the coach. This stock was supplemented by some Gresley Quad and Quint-arts: apart from having full length partitions between compartments, these were no great improvement on the ex GE stock.

In view of the large number of routes in the suburban network, the GE went in for route indications: originally, these used white, green and red lights by night and discs by day. Eventually, the red and green lights were replaced by purple lights at night and by a purple disc with a thin white rim by day. The headcodes were used to indicate the platform at Liverpool Street in the case of up empty stock trains coming from Stratford. For trains beyond the suburban area, the national headcodes were used, but, during daylight, white discs were used in place of lamps.

Towards the end of the 1930s, the GE began to lose its isolation. More Gresley stock appeared — including the open coaches with very uncomfortable bucket seats — larger turntables and automatic coaling plants were installed and bridges strengthened. As a result of the introduction of the V2s on the GN and NE sections, some of the K3s were 'cascaded' on to the GE: they took some of the express goods work from the J39s. In 1935-36, GC D9s were brought in to replace the D13s and one of the GC Atlantics, 6083, was allocated to Cambridge early in 1936 to replace one of the small GN 'Klondykes' Class C2, 3257. V1 tanks were introduced in 1938, and some J50s also appeared about this

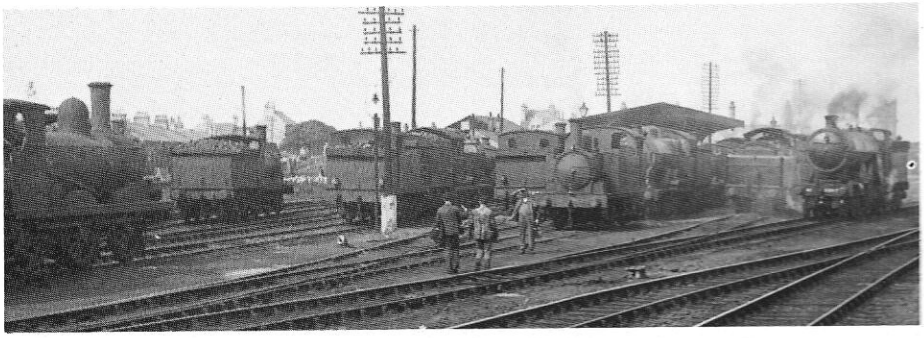
time. But, even at the outbreak of war in September 1939, there was a great deal of the Great Eastern still to be seen: it was only at the end of the war that the pace of change quickened, with the introduction of eight of the first ten B1s in 1945.

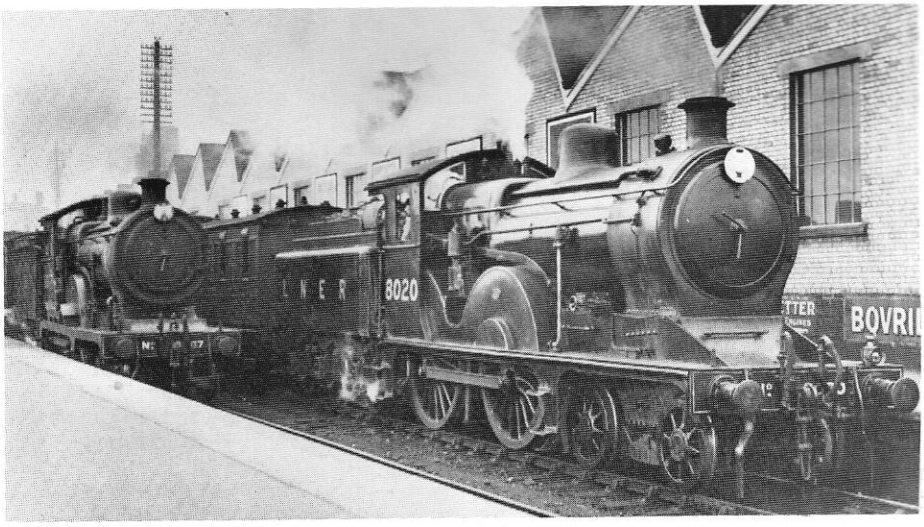
Finally, here is a recollection from 1934 which summarises the Great Eastern as I knew it. It is a hot August afternoon in Cambridge, about 3.25 pm, and we are on the service road leading to the cattle market and the goods station. The view to the south of this location is blocked by the bridge carrying Hills Road over the line but, looking north, there is a splendid view of the whole of the south end of the Cambridge layout. There are signals visible covering all movements past this point and, for certain movements, an electric bell rings continuously to warn any railwaymen who may be on the track.

The starting signal for platform 2 is lowered, and the 3.30 pm buffet car express for Kings Cross comes across the layout. This has one of the four large GN Atlantics, allocated to Cambridge, on it — most probably 4430 or 4439. No sooner has the last of the five Gresley coaches disappeared under the bridge, then the sound of point motors is heard; the bell starts up again and the signal for the down goods comes off. A long drag of empty private owner wagons, with one of March's J17s hauling it, clanks noisily across the up main. Meanwhile, a light engine comes up the platform road to stand opposite our vantage point. This will be, most probably, a Cambridge B12, 8527 or 8530, disfigured by the ACFI water heater.

The bracket signal in the centre of the station, sticking out from the roof, is showing clear for a train to come over the scissors crossover into the south end of the long continuous platform. A highly burnished Claud Hamilton 4-4-0, 8868 of Kings Lynn shed, brings a restaurant car train into platform 1: this train started at Hunstanton, which enjoyed a good service in those days. 8868 is a reserve royal engine and was used for the short journey between Kings Lynn and Wolferton: it is speedily uncoupled, comes forward, reverses, and goes back to the shed via the through road. Meanwhile, amid much hissing from the opened drain cocks, the B12 backs on to the train in platform 1. A short pause, the starting signal for platform 1 is lowered, the bell starts up again as the up starter comes off, showing 'M' on the route indicator, and the B12, still with drain cocks open, gets the train on the move. Once over the double slip, the cocks are shut and the B12 starts to make herself heard until she disappears under the bridge leaving behind that all-pervading scent of South Yorkshire coal, hot oil and steam. All that is left is the accelerating string of carriages disappearing on the up line on their way to Liverpool Street. □

2-4-2T Class F3 8065 — the tank version of Class E4 — stands in platform 2 at the south end of Cambridge station with a stopping train for Haverhill and Long Melford. Some of these trains worked through to Marks Tey and Colchester via Sudbury. The splitting home signals, for trains from the south to pass over the scissors crossover to reach platform 4 — the north end of the long continuous platform — are visible in the background. A Gresley coach, used on the Kings Cross-Cambridge buffet car trains, can be seen standing in the carriage sidings.
Photo: J. G. Dewing/R. C. Riley collection



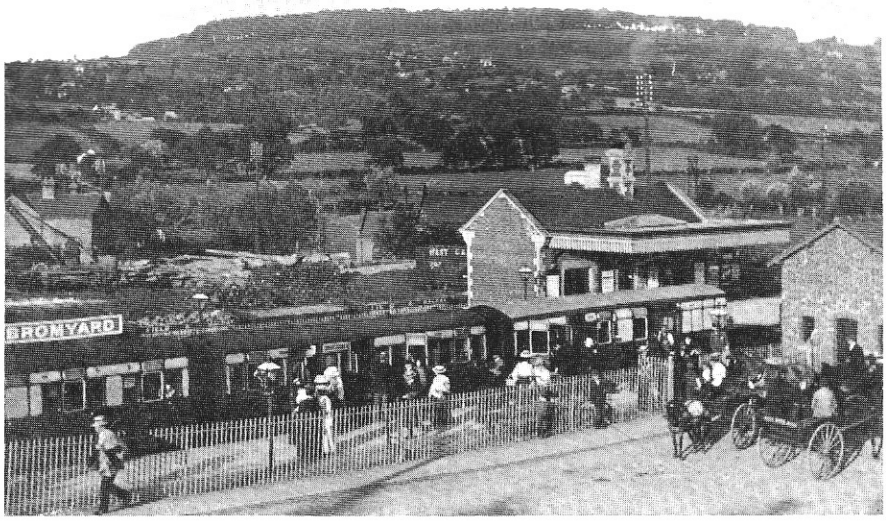


TOP: The north end of Cambridge shed yard on 26th August 1931. Ivatt Atlantic class C1 3297 is waiting to back up to the loco spur, just south of Cambridge North box, before proceeding to the south end of the station to take up a Kings Cross working. Other locos visible include a B12, two J15s, two J66s, a J68 — 7038, a D16 and either a D13 or a D15 fitted with an ex oil burning tender. To the left of the J15s, the Midland coal yard can be seen.
Photo: Rev. A. V. W. Mace

ABOVE: Class D13 8020, with an ex oil burning tender, stands in platform 6 at Cambridge on a local train, most probably for March via St Ives, on 8th May 1935. In Platform 5 alongside, Class D15/2 8867 waits at the head of another stopping passenger, probably to Newmarket, Bury St Edmunds and Ipswich. The wall of Cambridge shed can be seen behind Platform 6: major alterations and extensions had been made, including the installation of a coaling plant, seen looming behind the first telegraph pole. The cleanliness of the shed brickwork will be noted — hardly surprising as it was under two years old.
Photo: R. C. Riley

Special thanks to R. C. Riley who provided the photographs for this article.

Bromyard, c.1900, with passengers alighting from a Worcester-Leominster train. There was no yard crane at the station and a travelling crane was brought in to unload timber and other bulky goods.



A Great Western rural station

BROMYARD

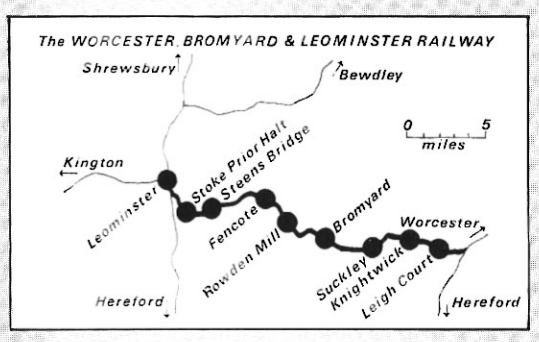
Described by **WILLIAM H. SMITH**

All photos from the author's collection unless otherwise stated

Bromyard station was opened in 1877, an event anticipated for no less than 16 years. The lengthy delay can be explained by a combination of uncertain finances and bad luck with contractors.

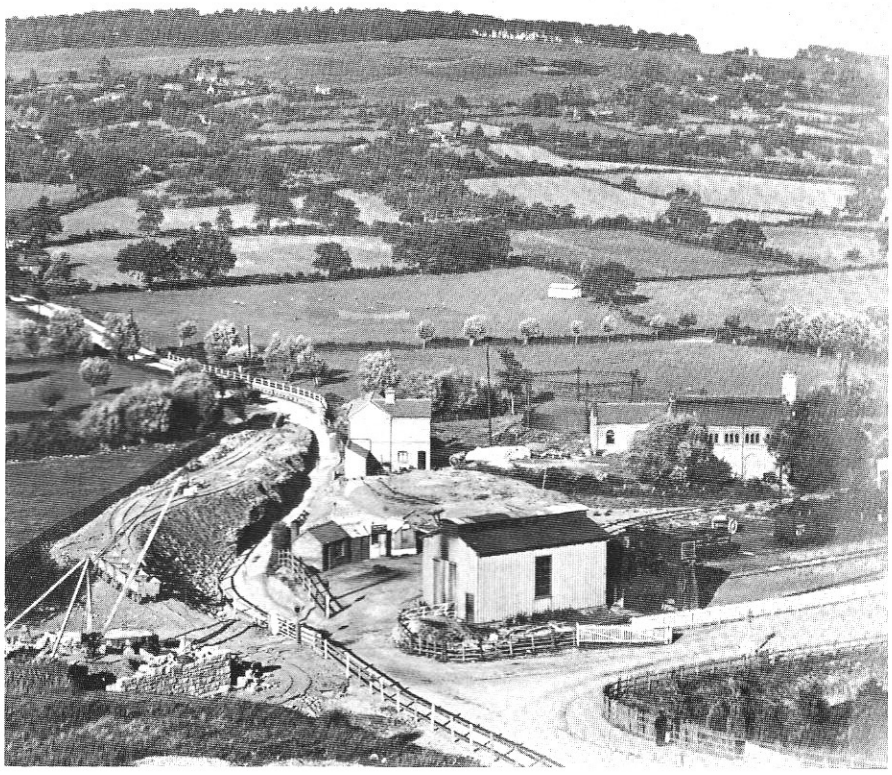
A line to serve the agricultural area of north west Herefordshire, connecting the market towns of Leominster and Worcester, had been proposed by local landowners and farmers in and around Bromyard in 1859. North Herefordshire has never been very populous and there are no natural east to west pathways which a railway can take. Prospects, therefore, were not promising. However, in the years prior to 1859, the Shrewsbury & Hereford railway had opened to the west of the area and the Worcester & Hereford had been promoted in the east. Tenbury, a town not far away and of similar size to Bromyard, had also gained a railway in 1859.

Naturally, the Bromyard promoters used this neighbouring railway development to encourage support for their own scheme. An application to Parliament was made in December 1860, following work done by a local committee, and the company's Act of Incorporation received Royal Assent on 1st August 1861. The title was to be the Worcester, Bromyard & Leominster Railway and Bromyard station was to be about equidistant from Bransford Road, on the West Midland Railway, and Leominster, on the Shrewsbury & Hereford. The total length of the line was 24½ miles.



The WBLR had financial backing from the West Midland Railway to the amount of £50,000 of the £200,000 they had authority to raise. The WMR also agreed to allow a rebate on all traffic passing to or from the Bromyard line in the event of receipts not meeting the interest on borrowings or other fixed charges after the working costs of 52½% had been paid to the GWR. The railway was to be completed in five years, but by 1864 no constructional contract had been signed, in fact the land purchase needed was not even complete, despite the company's expenditure of nearly £22,000. A second act was needed to extend the time for completion until 1st August 1868.

The contract for the Bransford to Bromyard section was finally let to Mr Yeoman of Dalston, a fact that was given to the proprietors on 7th October 1864. The engineers were to be Messrs Wilson & Lewis but it took almost a year before any work on the contract actually began, and another serious interruption to progress soon occurred; the contractor went bankrupt



An 1897 view showing construction of the overbridge through which the Leominster & Bromyard Railway would join up with the terminus of the WBLR. Visible are the engine shed, water tank, goods yard entrance and original station entrance, and weighbridge.

and all work came to a complete standstill at Christmas 1866. Spending on the work involved continued to be worryingly high, £78,757 having been spent up until 30th September 1866. The contract was to be re-let to Mr Jackson but finances continued to worsen and by June 1887 the company had only £67 left in the bank. Jackson's contract included a stipulation that Bromyard was to be reached by January 1867 so it was left to local people to bail out the company in order to ensure the opening of their railway.

Although some help was forthcoming from the district, it took an approach to the GWR to get what was needed; £40,000 was arranged to meet the WBLR's liabilities but before the arrangements — through the issue of debenture bonds — could materialise, court orders enabled creditors to seize and sell property thus severely restricting developments. The remaining creditors were then asked by the WBLR board to "get together amongst themselves and help the company to complete the railway as far as Suckley Road".

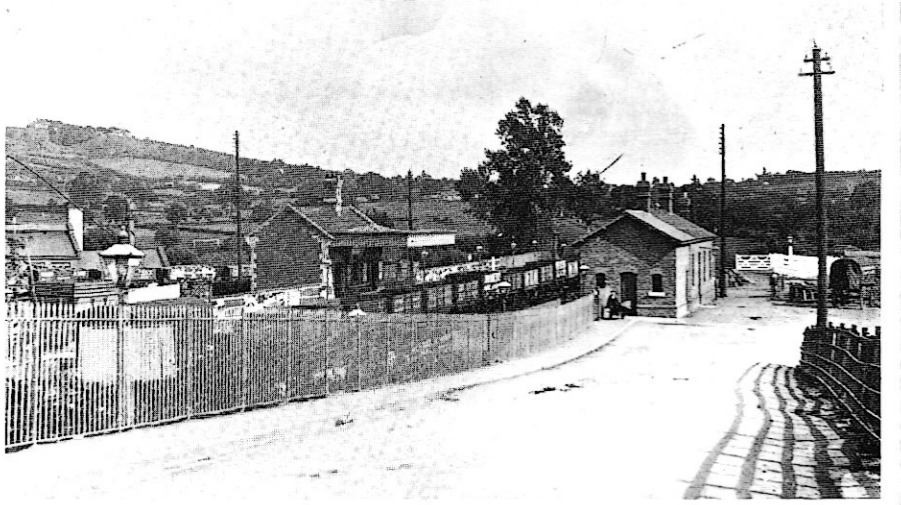
By 1869 it was clear that the company could not find the resources to reach Bromyard and that a terminus at Yearsett, seven miles from Bransford Road, would mark the limit of its resources. The Board of Trade was approached for permission to abandon the part of the scheme which involved Bromyard. Instead of completing the line to Leominster the company decided to build a terminus at Yearsett, a tiny hamlet which could not be expected to produce any significant trade for the railway. In addition, completion time was now extended until 28th June 1871 for the seven mile length.

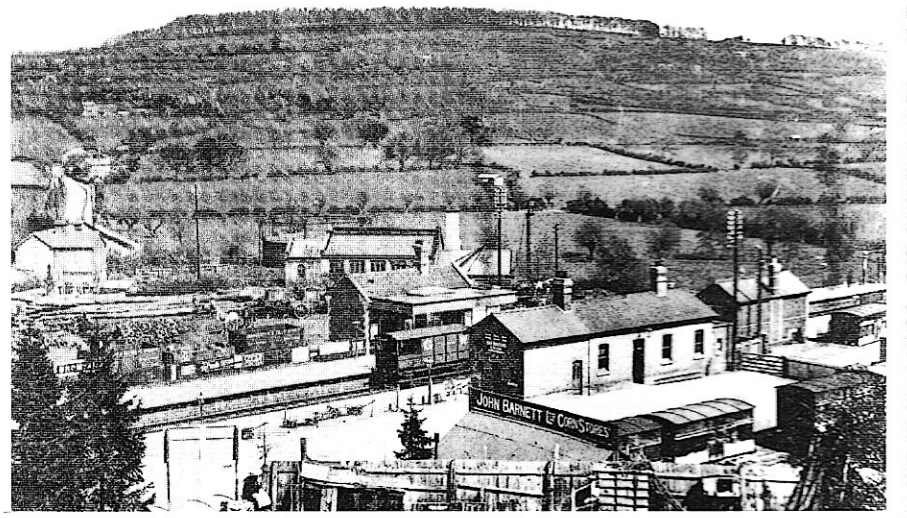
In 1870 finances were given a boost when permission was obtained to raise £48,000 capital partly to enable completion of the line to the new terminus and partly to pay off liabilities already incurred. Furthermore, at the discretion of the Court of Chancery, an extra £45,000 could be raised if the original plan to reach Bromyard was taken up again. Another breakthrough for the WBLR came in 1870 when it entered into agreement with the GWR concerning the working of the line. For 52½% of gross receipts the latter company undertook to work the line in perpetuity but it was not until September that the directors could ask the Board of Trade to send their inspector and even at this date, the line was not actually finished, the Board acting to pacify the long suffering shareholders. So at the opening on 2nd May 1874, the railway was still 3 miles 62 chains from Bromyard.

In the very same year a new company was formed, not associated with the original WBLR, to resurrect the plans for the western end of the cross country route linking Bromyard to Leominster on the old Shrewsbury & Hereford Railway. This company was incorporated on 30th July 1874 with authorisation to construct twelve miles of track. Bromyard should now have been approached from east and west by two different companies, but very little had gone according to plan previously and apparently little changed for it was another three years before the gap between Yearsett and Bromyard was filled.

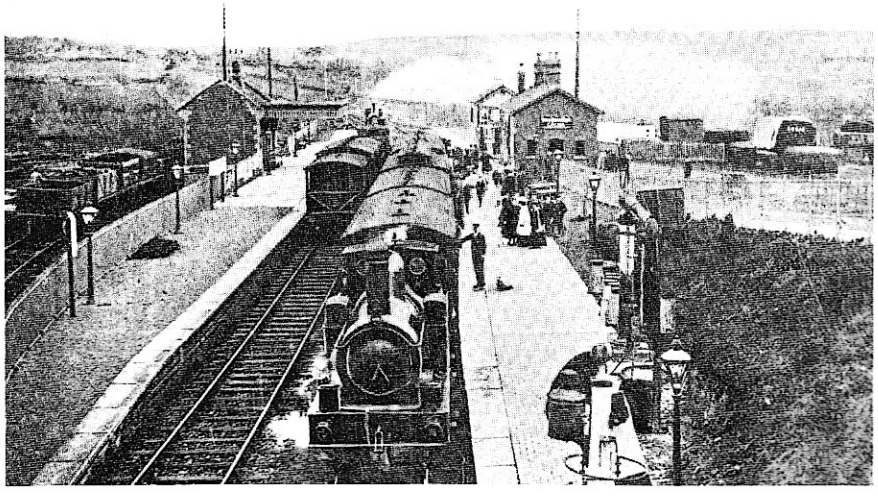
On 22nd October 1877 the station at Bromyard was at last opened, becoming the terminus from Worcester. Yearsett became superfluous and was closed. The Leominster & Bromyard Railway's progress had been minimal so when Bromyard station opened there were no signs of a railway approaching from the opposite direction. It was 1880 before the contract for the first 3½ miles from Leominster to Steens Bridge was let and 1882 before it was finished. Subsequent wrangling with the GW/LNWR Joint Company over the use of their Leominster station delayed the opening until 1st March 1884.

Shortage of money once again halted the progress to Bromyard from the west but travellers from Bromyard via Worcester in 1883 could reach London

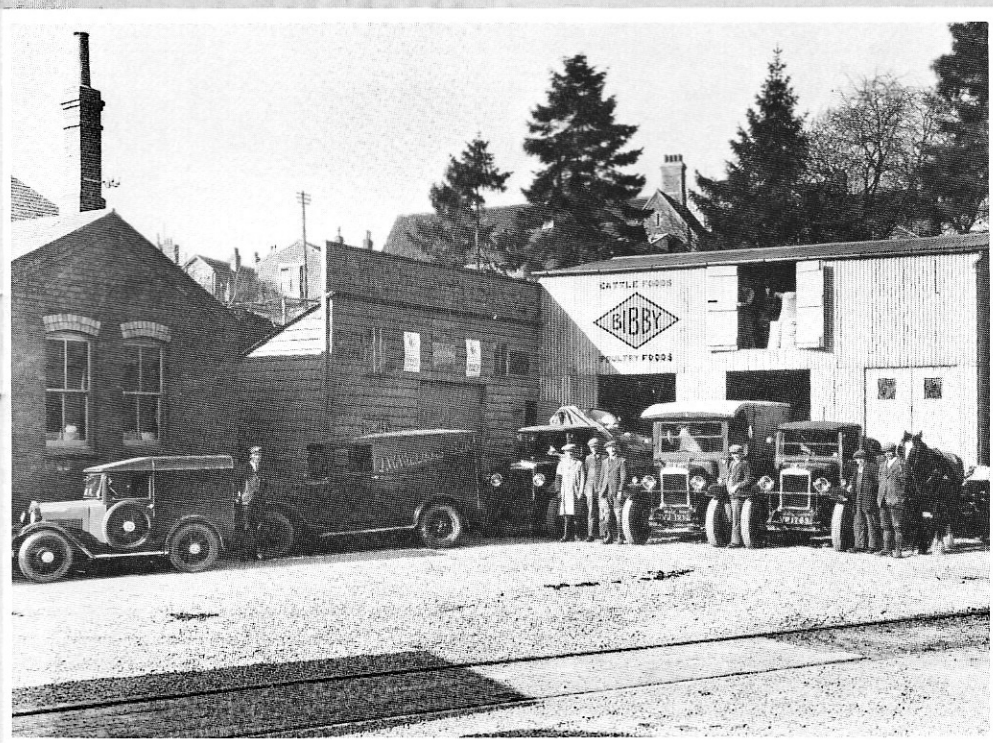




ABOVE: Two views taken before 1910, showing traffic typical of a rural station of the period — cattle wagons, and coal being unloaded into a horse and cart.



An Edwardian view looking towards Worcester. The engine is GWR 0-4-2T 517.



TOP: The cattle feeds warehouse and delivery vans of J. W. Williams in Bromyard goods yard in the 1920s. The building on the left is the goods office.

ABOVE: LNER Class J25 0-6-0 2075 at Bromyard on 5th January 1940, one of several LNER engines on loan to the Worcester division during the war and based at Worcester shed. Photo: Selwyn Pearce-Higgins/NRM

RIGHT: Another wartime photo: station staff, principally women, employed 1939-45.

on an excursion departing at 9.00 am and arriving back in Bromyard at 2.30 the following morning. Excursions were run from Birmingham and Worcester to Bromyard Races at this time too. There were five local trains per day to Worcester but at the AGM in October 1884 shareholders were given the unhappy news that there could be no dividend paid.

A diversion was provided in 1884 by the presentation to parliament for an Act for a new railway; the Worcester, Bromyard & Hereford Railway which, had it been built, would have connected Bromyard with Withington on the Worcester and Hereford Railway. In 1885 adventurous excursions to Rhyl and Llandudno were advertised but did nothing for company revenues which actually dropped in 1885. The devastating May flood in 1886 which affected the whole North Herefordshire district caused the collapse of the Bransford Bridge and very nearly the company as well.

In 1887 it was announced that traffic had increased at last. The railway bank above the station approach was planted with trees by the independent company to celebrate Queen Victoria's Jubilee in 1887 but it was to become one of its final acts for at a shareholders' meeting in July 1887 a resolution was passed to accept the terms offered by the GWR for the WBLR. The line was duly vested in the GWR on 1st July 1888 and the other company, the L&BR, at the same time. In addition the GWR undertook to complete the line to Bromyard from Leominster. The opening of this section took place in 1897 on 1st September and Bromyard became a through station on the GWR line linking Leominster with Worcester, no less than thirty six years after the first authorisation.

At this time Bromyard station layout was altered considerably. A second platform was put in and, for passenger accommodation, a substantial brick building with stone facings and corners in the William Clarke style. The original WBLR building remained, it being standard with the station buildings at Knightwick and Leigh Court. Bromyard's original signal box was no longer big enough and was replaced by an enlarged version placed closer to the WBLR station building. The corrugated iron engine shed was removed, making way for a goods loop line, whilst the second siding at the north of the station was slewed to be closer to the new gasworks.

At the time of the initial through working, the passenger timetable altered, with an increase of one train per day and timings to make main line connections at both Leominster and Worcester. Two goods trains were scheduled each day instead of the services being made up of mixed traffic as previously.

Goods carried by railway out of Bromyard was largely local agricultural produce including hops; at the hop picking season many families arrived by train from the Black Country to be met by wagons to take them to the farms where they were to lodge and work. A local tile factory at Linton sent very large quantities of their products

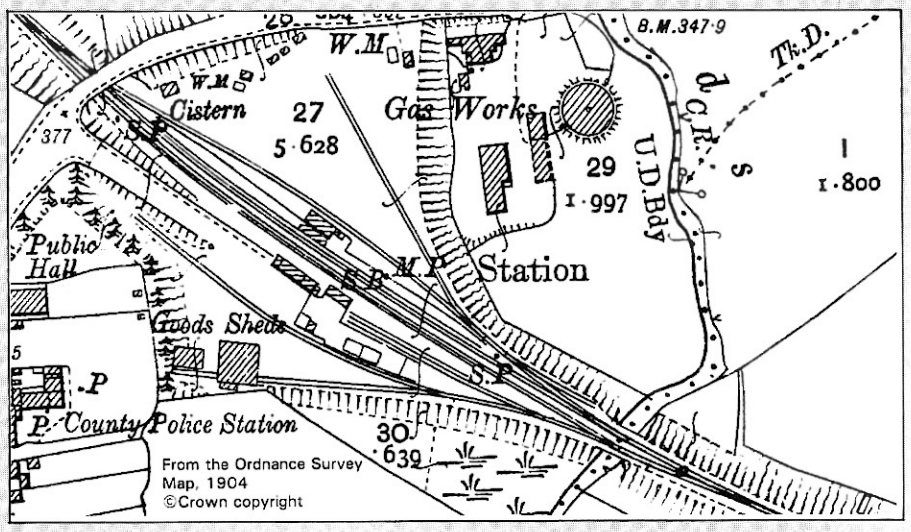
through Bromyard from the 1880s onwards and eventually a two foot gauge tramway connected the works to the main railway. Into Bromyard came coal, anthracite for the hop kilns, grain seed, fertilisers and animal foodstuffs. John Barnett Ltd, Worcester and Bromyard, had a corn stores sited in the original station goods yard, his privately owned wagons often standing in the sidings. Later, J.W. Williams and Son Ltd, dealers in seed, corn and coal set up a distribution point in the station yard.

The early through passenger trains would almost certainly have been dealt with by the 517 Class 0-4-2Ts from Leominster and Worcester sheds and by 1902 such a loco, 538, was a regular at Bromyard hauling the typical set of GWR four wheeled carriages. Not so typical were two Dean 4-4-0s mentioned in the Railway Observer by Betram T. Waite who remembered Badminton 3306 *Shelburne*, and Bulldog 3462 *Winnipeg*, both on goods trains at Bromyard.

In 1915 the number of passenger trains per day from Bromyard was reduced to four which continued to be the norm up until 1939. By this time locomotives recorded at Bromyard included the 2-6-2T 45XX and 55XX classes with 'B' set coaches and 0-6-0 Dean Goods on freight trains. The 0-4-2Ts maintained their hold on the majority of passenger services, 3571 class 3574 appearing frequently, but by now the more modern 0-4-2T 58XX class, such as 5817, were to be seen at Bromyard. The Second World War brought exotic visitors, LNER J25 0-6-0s working from Worcester shed on loan and probably taking over a Worcester Dean Goods working.

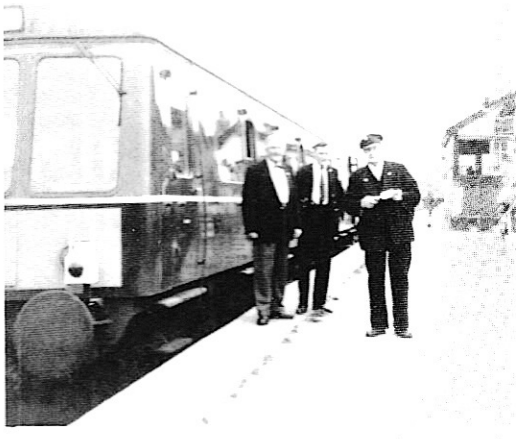
The venerable 3574 was still putting in appearances at Bromyard in 1948 when it was recorded working the 7.00 am Leominster to Worcester in November of that year but by then 0-6-0PTs were being used more frequently; then new 74XX class 0-6-0PT 7437 arrived at Bromyard in November 1948 working the 8.00 am Worcester to New Radnor and 10.50 am return which became a regular booking for this locomotive for several months. In 1949 the 5.35 pm Worcester-Leominster and 6.35 pm return was an auto working attached to a 14XX Class 0-4-2T whilst the 5.40 pm Worcester-Bromyard was a diesel railcar trip.

As private motoring returned to normal following wartime restrictions the traffic along the whole length of the branch declined until it became clear that the Leominster-Bromyard section would become redundant.



he Railway Executive, by their closure decision, returned Bromyard to the status of a terminus on 15th September 1952. On the last day observers noted 0-4-2T 5807 working the 2.30 pm through train to Leominster. 0-6-0 Dean Goods 2551 was at work on a goods whilst 0-6-0PT 4629 of Worcester shed was on passenger train duty with two auto coaches in tow. An 0-6-0PT, 4678 (85C), left Leominster on the final round trip at 4.20 pm whilst 2-6-2T 45XX Class 5573 brought the equivalent final round trip through Bromyard from Worcester with a four coach train to provide for the hop pickers from Suckley. A railcar usually worked the final evening service but on this occasion 2-6-2T 5530 worked with three coaches meeting the returning Leominster bound 4678 at Bromyard, the last crossing of trains that there would be.

The timetable showed no reduction in the number of trains between Worcester and Bromyard, but some timings were altered. The 57XX 0-6-0PT monopolised the services from Bromyard, both goods and passenger, over the succeeding twelve years until just before final closure a single car diesel unit was introduced. The end was inevitable however, and on 7th September 1964 Bromyard station closed to traffic, although it was used as a wagon storage area for a short period afterwards. □



LEFT: Class 57XX 0-6-0PT takes water at Bromyard in 1959. Photo: P. J. Garland

TOP: The SLS pays its respects to Bromyard on 26th April 1958. Photo: G. F. Bannister

ABOVE: Nearly the end: Diesel unit and platform staff in 1964.

ABOVE: The Bagnall saddle tank, with its ugly chimney extension, at Stony Stratford in LMS days. Note that the tramcar's 'sag' has been corrected.

All photos: author's collection

A humble but characterful line which served one of Britain's foremost railway towns. Described by **ALLAN EDWARDS**

The STONY STRATFORD Tramway

Linking two towns

The main line railway system of Great Britain was substantially complete by 1870. Those towns which had been bypassed — either by obstructive landowners being unwilling to allow lines through their property, political machinations between rival railway companies, or for geographical reasons — cast envious eyes at neighbours now prospering via their better connections and sought a means by which they too could join the transport revolution.

One town that suffered from the coming of the railway network was Stony Stratford in North Buckinghamshire. This market down had developed along the old Roman Watling Street (now the A5 trunk route) and had been an important staging halt for coaches; indeed the phrase 'a cock and bull story' originates from the telling of tales in one of the coaching inns of the town ('The Cock') and then re-telling it — with some embellishment — in the adjoining inn ('The Bull').

When George Stephenson was surveying the London and Birmingham Railway, an obstacle to be surmounted was the valley of the River Ouse on the Buckinghamshire/Northamptonshire border. One route considered was through Stony Stratford — the origin of the town's name is quite literally a 'stony straight ford'. The eventual decision, owing to the excessive gradients that would have been necessary on either side of the valley bottom and the difficulties of constructing a firm foundation on the floodplain at that point, was for a route two miles to the east, near the hamlet of Wolverton and spanning the Ouse on a mile of high embankment and graceful 12-span viaduct.

So it was the tiny hamlet of Wolverton that grew. Being almost exactly midway between London and Birmingham, the London & Birmingham's main locomotive works was established there and refreshment rooms were built. Until almost the end of the 19th century Wolverton was a compulsory halt for trains on the line so that engines could be changed and passengers refreshed.

The town grew rapidly to an austere and symmetrical pattern, its housing owned by the railway company and leased to its employees; it seemed almost to be a northern industrial town misplaced in the agricultural heart of England. Stony Stratford meanwhile declined, becoming largely a dormitory town for its now larger neighbour.

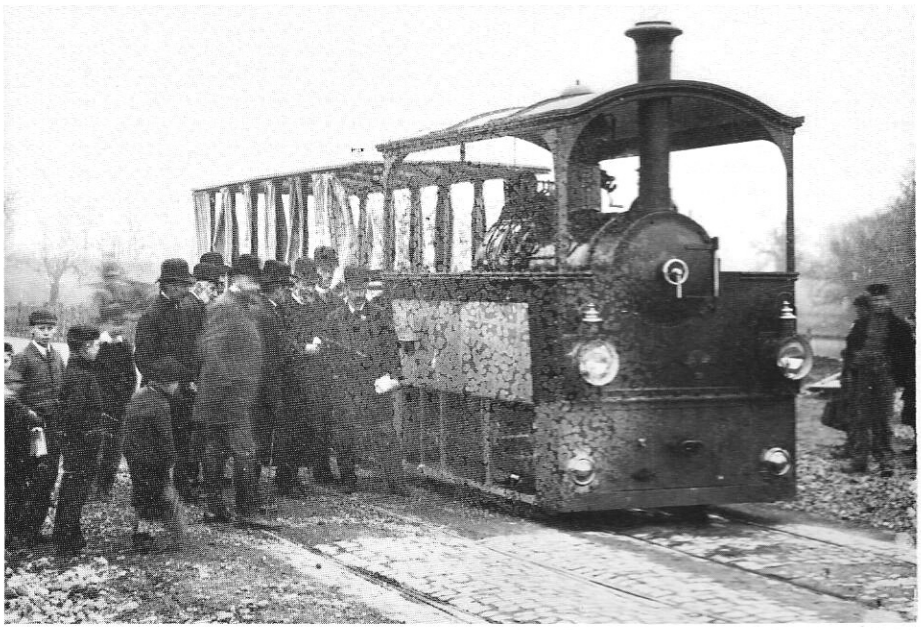
By 1880 hundreds of workmen were walking daily to Wolverton from Stony Stratford and the surrounding villages. An alternative form of transport was a horse bus from Stony Stratford but the fare for this was 6d (2½p) for a single journey, a price beyond the wage of the workmen of the now London & North Western Railway Co., or the new McCorquodale's printing works whose average wage was only 30 shillings per week (£1.50).

It was in 1882 that a group of tradesmen from Stony Stratford first made a proposal to link the two towns by means of a light railway. While their stated motive was to transport the workmen to Wolverton one cannot help but feel that they had an ulterior reason for the scheme: to bring visitors and their money back in to a town that was not on the all-important railway map.

The first scheme, incorporated as the Wolverton & Stony Stratford Tramways Company Limited, was to construct a standard gauge line two and a half miles long. Capital was not to be forthcoming, however, and on 3rd September 1883 it was decided to place this project into voluntary liquidation. Two days later the Tramways Order was granted!

Frederick Charles Winby then entered the scene. He was the patentee of a system of track construction, called the Tension Girder Patent, in which normal flat-bottomed grooved tram rails were laid on twelve inch wide baseplates. These did not need to be embedded into the road bed. Only the ballast or setts closest to a defective rail had to be disturbed when changing a damaged section of line. The system was more expensive to construct but, theoretically, had lower maintenance costs afterwards. Only the Nottingham & District Tramways had adopted the system.

Winby was clearly seeking to use a Wolverton and Stony Stratford branch as an advertisement and contracted to build it himself in return for shares in the completed line. This company was incorporated on 6th September 1883 with an authorised capital of 20,000 £1 shares. This was increased to 30,000 shares the following month; an excessive amount for such a short route. Only £34 in shares was actually taken up. The ever-increasing number of workers from Stony Stratford employed in the L&NWR carriage works and McCorquodale's printing plant (which employed mainly female labour) continued to plod daily between the two towns.



ABOVE: One of the Krauss tram engines at the Deanshanger terminus with a 20-seater car on the occasion of an inspection trip in 1888.

BELOW: "Right away, Billy!". Newton, the long-serving conductor, descends from the tram at Stony Stratford sometime after the Grouping. Notice the 'General' double decker buses; today, Street Shuttle buses wait at the same location.

In August of 1886 another contractor took an interest in linking the towns. Charles Herbert Wilkinson had started work on a 3′ 6″ gauge tramway to link the nearby terminus of the Wolverton to Newport Pagnell branch line to the Northampton to Bedford line at Olney. This project fell through when only a few earthworks had been completed.

Wilkinson formed the grandiously titled Wolverton and Stony Stratford District Light Railways Company Limited, incorporated on 5th October 1886. He undertook to build the line for £13,325 and to take up £2,000 in shares himself. The line was to be 3′ 6″ gauge.

This time the share offer was successful. In May of 1887 General Hutchinson of the Railways Inspectorate, Board of Trade, came to make his examination of the completed works, declaring the tramway safe for traffic.

The route

The tramway began in the Newport Pagnell road outside Wolverton station goods yard where there was a turning triangle on this steeply descending stretch of road and a spur into the main line goods yard for the

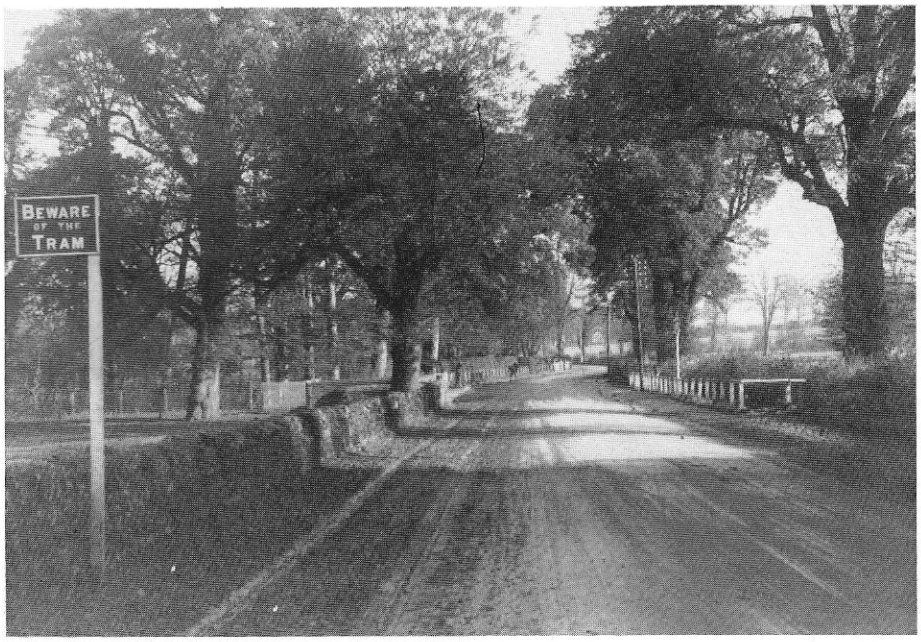
interchange of freight. The tramway climbed steeply on a righthand curve to the roadbridge over the 4-track railway line where tramway passengers could board outside the overline buildings of the L&NWR station. The tramway then continued up and over the lines leading into the railway works. These had originally been the main line but were replaced by an 1881 curving deviation route (this has been a problem for British Rail in recent years, the reverse bends requiring a speed restriction) and a new station.

With its track in the centre of the highway the tramway passed the railway workshops, the town of Wolverton being entirely on the lefthand side. Virtually continuous brick walls to the right sealed off first the L&NWR works and then McCorquodale's printing factory. It was nearly threequarters of a mile before the tramway line abruptly left the town behind, moving to the lefthand side of the road.

The route was almost straight but a fierce hill faced engines travelling towards Wolverton at almost the halfway point of the route where the old road to Wolverton (the remaining buildings of the original hamlet somewhat west of the new industrial town having by this time received the suffix 'Old') diverged from the newer, more direct course that the tramway traversed.

Shortly before entering Stony Stratford the line abruptly cut across to the opposite side of the road. More than one pioneer motorist was apparently taken unawares by the sudden appearance of a steam tram engine and its trailers across his bows!

Entering the town the line again took up position in the centre of the road. It had traversed just one mile from Wolverton. After a few hundred yards the road came to a T-junction with Watling Street outside The Forester's Arms public house. The tramway turned right here to continue northwards beyond The Cock and The Bull hotels for another half mile to terminate outside The Barley Mow public house, the last building in the town.



TOP: Early days. A Krauss engine and 80-seater car at Stony Stratford about 1888.

ABOVE: Between the towns. This picture was taken a few hundred yards from Stony Stratford; the line crossed the road just forward of this point and, despite the warning notice, the sudden appearance of a tram surprised many pioneer motorists.

BELOW: The entire rolling stock of the line c.1910 is seen outside Wolverton Works. Leading is Green engine No.2 with two 100-seater cars; No.1 follows with 80- and 100-seater cars.

Operation and rolling stock

On 17th May 1887 — the Friday prior to the Whitsuntide holiday — horses pulled the first tram from Wolverton station goods yard to Stony Stratford tram depot. On board were Charles Aveline (the Managing Director) and other officials of the tram company. For the return journey the horses were replaced by one of the two Krauss tram engines. Local school children were given free tickets.

These first engines were built in Munich to a standard design sold extensively to continental operators. They had outside cylinders of 8″ diameter and 12″ stroke. The four driving wheels were just 2′ 6″ in diameter and the wheelbase was a rather close-set 5′ which must have made for a somewhat lively ride! Working pressure was 175 lbs per sq inch. These locomotives, with their distinctively European canopies and massive oil lights, soon earned the tramway the nickname 'the little German'.

The original rolling stock of the tramway comprised five double-deck bogie passenger cars built by the Midland Carriage & Wagon Works of Shrewsbury. Three of these were massive 100-seater cars of 44 foot length, certainly the largest tramcars to run in this country until the Swansea and Mumbles Railway built their gigantic electric cars many years later. The coaches had two inward-facing benches on the lower deck and a single continuous slatted bench on the upper deck where passengers faced outwards. The upper sides were open to the elements apart from waist-high decency boards above which were fitted canvas blinds.

Capstan-operated brakes were fitted on each end platform, the locomotives also being equipped to operate the trailer braking by pull-rods and chains. The couplings of these cars were attached to the bogie centres. Originally the illumination was provided by oil lamps but acetylene lighting was later installed to be replaced again by conventional Pinsch gas lighting after the takeover of the line by the L&NWR.

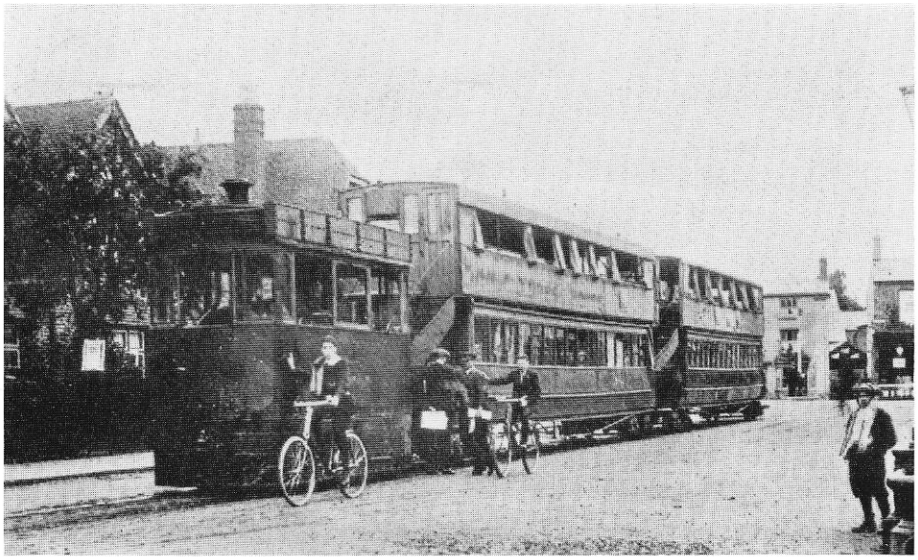
The fourth car was somewhat smaller, an 80-seat vehicle with neither decency boards or blinds on the upper deck as first built and, most unusually and inconveniently, internal landings to the staircases from the platforms. Decency boards and blinds were added later.

The fifth and smallest car was a 50-seater and was the only one to be fitted with upholstered seating. One presumes that it was intended for use at times when the workmen would not be travelling. None of the tramcars carried external numbers and all of those mentioned were to last the lifetime of the undertaking.

It was hoped from the start that the line would also be a freight carrier so the original order for rolling stock included a number of parcels vans and small goods wagons in addition to 10 ton coal and coke trucks. These latter were some 24 feet long and carried on bogies. Regrettably, no photographs of the line's freight stock are known to exist.

The depot for the rolling stock was in Stony Stratford. A triangular spur into what is now St Mary's Avenue in Wolverton Road curved around to tramcar and locomotive sheds constructed in what had been a meadow. The entrance spur continued around the back of these buildings to rejoin Wolverton Road 100 yards further west, this connection facing towards Wolverton only.

The initial service comprised some 14 trams each way daily, the schedule being timed to convey the workmen (and in the case of McCorquodale's printers a high proportion of women) to and from their employment and also to connect with main line train services from Wolverton.



ABOVE: Green engine and two 100-seater cars outside the Forester's Arms, Stony Stratford.

BELOW: A view outside the main L&NWR works entrance at Wolverton. The Green engine is hauling a pair of 100-seater cars.

Extension

Before the line had even started operating Wilkinson was planning an extension across the county border to Deanshanger where, at the Brittania Ironworks, E & H Roberts had established a thriving business manufacturing agricultural implements.

The Tramway Order for this 2 mile 3 chain extension was granted just two months after the original section began operating. Work quickly commenced from an end-on connection with the original route at The Barley Mow. A third tram engine, identical to the first two, and a 20-seat four-wheeled tramcar were delivered to work the extension, which was to be a private venture of Wilkinson's and leased back to the original company.

Leaving The Barley Mow and taking its normal position in the middle of the road the extension travelled straight for almost threequarters of a mile over the embankment that carried the highway across the floodplain of the River Ouse. The river was the county border. Climbing very steeply into the Northamptonshire village of Old Stratford, the line then swung sharp left onto the Buckingham road. A separate depot and workshop for this section of line was established at this corner.

The line then ran parallel to the Buckingham arm of the Grand Junction canal to Deanshanger where it terminated on the village green outside The Fox & Hounds public house. This extension was sanctioned by the Board of Trade on 24th May 1888 and immediately came into public use.

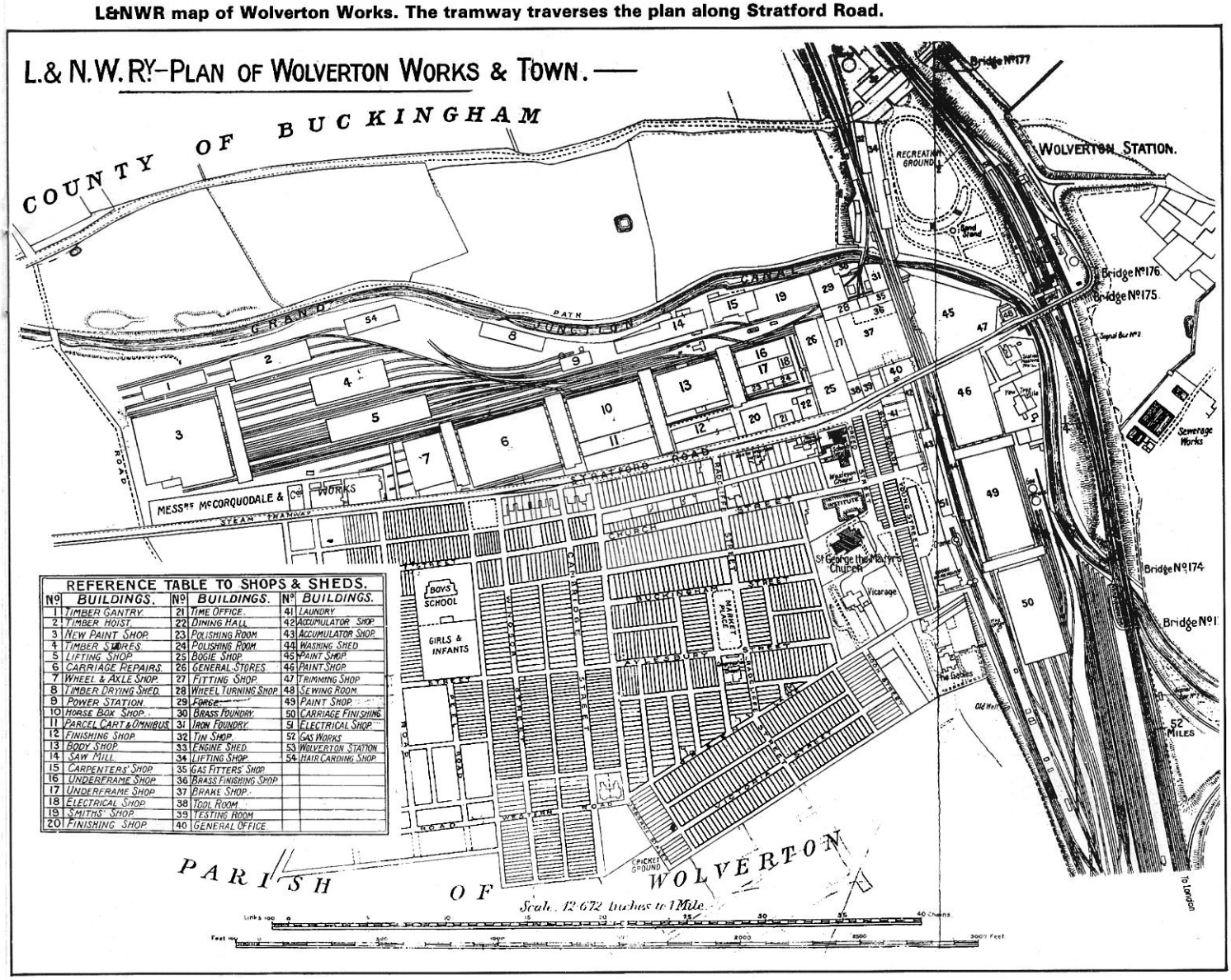
E & H Roberts, however, found themselves perfectly well-served by the canal (this section of canal was closed in 1960, the remaining main route is now renamed the Grand Union Canal) and the intended spur into the foundry was never built.

Rebirth

The tramway quickly generated £45 a week in revenue at prices of 2d single Wolverton to Stony Stratford. A weekly workman's ticket cost 1 shilling (5p) and entitled the holder to four trips daily. The single fare through to Deanshanger was 4d.

The original tram engines were found to be too weak to pull the heavy tramcars and were replaced by two more powerful engines supplied by Thomas Green & Son of Leeds. These had the same wheel diameter and wheelbase as the European machines but with 9″ x 14″ cylinders at a working pressure of 175 lb per sq inch. They were also fitted

L&NWR map of Wolverton Works. The tramway traverses the plan along Stratford Road.



REFERENCE TABLE TO SHOPS & SHEDS.

No	BUILDINGS.	No	BUILDINGS.	No	BUILDINGS.
1	TIMBER GANTRY.	21	TIME OFFICE.	41	LAUNDRY
2	TIMBER HOIST.	22	DINING HALL	42	ACCUMULATOR SHOP.
3	NEW PAINT SHOP.	23	POLISHING ROOM	43	ACCUMULATOR SHOP.
4	TIMBER STORES	24	POLISHING ROOM	44	WASHING SHED
5	LIFTING SHOP.	25	BOGIE SHOP.	45	PAINT SHOP.
6	CARRIAGE REPAIRS.	26	GENERAL STORES	46	PAINT SHOP.
7	WHEEL & AXLE SHOP.	27	FITTING SHOP.	47	TRIMMING SHOP
8	TIMBER DRYING SHED.	28	WHEEL TURNING SHOP.	48	SEWING ROOM
9	POWER STATION.	29	FORGE	49	PAINT SHOP.
10	HORSE BOX SHOP.	30	BRASS FOUNDRY.	50	CARRIAGE FINISHING
11	PARCEL CART & OMNIBUS	31	IRON FOUNDRY.	51	ELECTRICAL SHOP.
12	FINISHING SHOP.	32	TIN SHOP.	52	GAS WORKS
13	BODY SHOP.	33	ENGINE SHED.	53	WOLVERTON STATION
14	SAW MILL.	34	LIFTING SHOP.	54	HAIR CARDING SHOP.
15	CARPENTERS' SHOP.	35	GAS FITTERS' SHOP.		
16	UNDERFRAME SHOP.	36	BRASS FINISHING SHOP.		
17	UNDERFRAME SHOP.	37	BRAKE SHOP.		
18	ELECTRICAL SHOP.	38	TOOL ROOM.		
19	SMITHS' SHOP.	39	TESTING ROOM		
20	FINISHING SHOP.	40	GENERAL OFFICE.		

with condensers mounted on their roofs. For many years these two machines were to carry advertisements for a house furnisher in Northampton painted on the front and rear. The large bogie cars carried painted advertisements for a Northampton tailor along their decency boards rather in the manner of a double-decker bus.

The original Krauss tram engines were presumably sold, though it is not known to whom, with the exception of one that was to last until 1900.

The revenue of the line was clearly insufficient as on 4th September 1889 the Wolverton, Stony Stratford & District Tramways Company Limited (as it had been renamed on 26th July 1889) went into voluntary liquidation. This action was unacceptable to certain of the creditors who applied for, and obtained, a Court Order winding up the company and placing it into the hands of the Official Receiver on 17th December. The line was closed. Workers from Deanshanger and Stony Stratford had to revert to footpower. The tracks began to rust. The tramway was, however, to be reborn in 1891 and to have an existence of another 35 years.

Samuel Leon headed a Bedford syndicate that took over the Wolverton to Stony Stratford section of the route from 20th November 1891 as the Wolverton & Stony Stratford & District Tramways Company. From 15th September 1893, with a capital of £5,000 in £100 shares, this business was formed into a new limited company with the clumsy title of Wolverton & Stony Stratford & District New Tramway Co Ltd. Gradually these shares were sold to Sir (as he later became) Leon until he held the controlling interest.

The Deanshanger extension was abandoned totally but the original section was to operate reliably and without major incident into the new century. In 1900 a further engine was ordered from Brush Electrical Engineering Co Ltd of Loughborough, a company later to supply many of British Rail's diesel fleet.

This locomotive was generally similar to the Green engines with inside cylinders of 7½" x 12". It too was fitted with condensing apparatus. It apparantly meant the end of the last surviving Krauss engine but it was not in fact a success, being little used. It was the Green engines that bore the brunt of the traffic until very near the end of the line's days.

Into the twentieth century

By 1906 the rails were becoming extremely worn. Derailments were frequent. These incidents were not really a danger, just an inconvenience to passengers who had to wait while the driver, fireman and conductor jacked the offending engine or tramcar back into its channel section rails. However, Bucks County Council took action under the Tramways Act of 1870 to enforce repairs to the permanent way. Harsh weather during the winter of 1906 caused delays to this and it was not until the following year, after raising

ABOVE: Cyclists found the tramlines to be a hazard. This view of Wolverton Road, Stony Stratford, shows a tram passing the first depot entrance.

another £3,000 through the issue of 30 additional shares and after a few months complete closure, that the work was completed.

During this renovation the section through the High Street in Stony Stratford was abandoned. Even in these early years of the new century motor traffic was making its presence felt through the narrow Watling Street. The tramway now terminated outside The Forester's Arms in Wolverton Road where a run-round loop was installed.

Soon afterwards the first motor bus spluttered onto the roads of the district. By 1914 the internal combustion engine was making an impact, not only on the revenue of the line: the Reverend G. M. Capel of the nearby hamlet of Passenham was one of the first car accident victims when he collided with the tram and wrecked his vehicle at the point between the towns where the tramway crossed from one side of the road to the other.

A Mr Gascoigne, Senior Overseer at Bletchley Post Office, also collided with it while riding his bicycle, sustaining what the Wolverton Express newspaper described as 'bad injuries', i.e. amputation of a finger and part of a thumb. Conflicts between road and tramway traffic were frequent at the turning triangle at Wolverton, though most of these were shouting matches between the respective drivers.

We tend to think of vandalism as a modern phenomenon but throughout the history of the tramway it was a target for youths who would place stones in the grooves of the rails so that they could watch trams lurch off the line.

Competition and decline

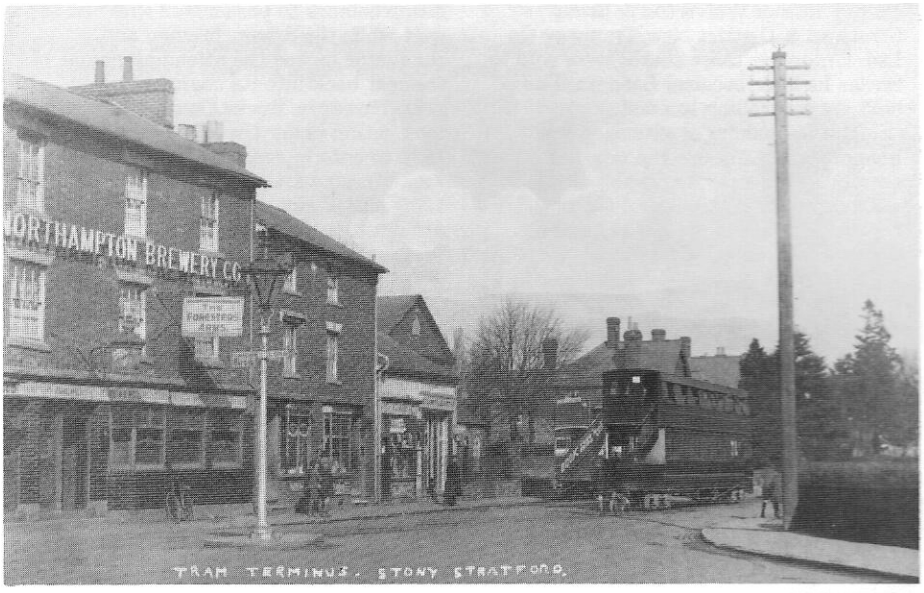
The motor buses would have destroyed the line much earlier if it had not been for the Great War. The buses were then commandeered by the Government and the tram soldiered on, though it was in poor condition by that time. The fares were doubled in 1915 which prompted one person, describing himself as 'a Wolverton working man' to write to the Wolverton Express saying that the company (referring to the L&NWR) did not seem to think that the employees needed a rise to meet this new cost of living.

Despite its temporary monopoly of transport between the towns during the war while the motor buses were serving in France the line was falling into a virtually derelict condition. The Workman's Committee was formed in 1915 who turned to Wolverton Urban District Council, the Ministry of Transport and the L&NWR Works Superintendent, Mr Treverthick, for support. The local authorities (perhaps wisely seeing that a day would come when the omnibuses would return to deliver the killing blow) refused to take over the line although it was still conveying some 700 people daily.

Just as it seemed that the line would close, in 1919, the L&NWR decided to step in. They purchased the line and actually began renovations. The track was relaid section by section on a concrete base and the rolling stock was overhauled, the tramcars emerging from Wolverton Works in chocolate brown relieved with yellow and white lining along with the coat of arms in the centre. The pronounced sag that the 100-seater tramcars had exhibited for many years was repaired.

A further locomotive was acquired. This was a standard W. G. Bagnell Limited of Stafford saddle tank, though the motion was boxed in. This engine worked at only 150 lbs per sq inch pressure but had outside cylinders of 10″ x 15″. Its weight fully laden with 300 gallons of water and ¼ ton of coal was 16 tons. It was finished in standard L&NWR livery and worked most of the traffic in the final years of the line, though the Green engines still appeared for workmen's trains. The standard chimney on the Bagnell engine was too short to prevent soot and cinders being thrown at the top decks of the tramcars so the little engine was disfigured by the addition of a stovepipe extension.

Upon Grouping the line duly passed into the hands of the London Midland & Scottish Railway but there were now more than a dozen motor buses plying the route between the two towns and despite the L&NWR renovations the tramway was becoming more and more outmoded with its 8 mph speed limit. Except for those times when the railway works and McCorquodale's workers wanted cheap conveyance to home or work the line was almost deserted. In the final years it was not unusual for a bus to be substituted for the tram. The LMS briefly looked at the possibility of electrifying the line, and just as quickly discarded it.



Almost at the end of its life, the engine runs around its car while a General bus waits alongside.

Closure and preservation

One can only wonder how long the route would have soldiered on had it not been for the General Strike of 1926. It was already an anachronism living on borrowed time, its only excuse for surviving being that it was bringing its owner's employees relatively cheaply to their work. Most similar lines had gone, or been converted to electric tramcars, by the turn of the century. It was a hazard to road traffic.

On Monday 3rd May 1926 the tramway ran as usual, but as the last workmen came in to Stony the line had in fact clanked, clattered, lurched and huffed its way between the towns for the last time. The General Strike began on Tuesday 4th May. The staff allocated to the tramway did not appear for duty. The tram never ran again.

The locomotives were scrapped but the tramcars were to have the same fate as many old railway coaches from Wolverton works: their bodies were sold for use as garden sheds, chicken coops or summerhouses. The author's garden shed door is in fact an upper deck entrance door from one of the tramcars.

The lower deck of one of the 100-seater cars is now at Stacey Hill Museum, Wolverton (now part of Milton Keynes) and can be seen during the museum's normal opening times. An even more remarkable survivor is a complete 100-seater car that the museum is aware of and trying to acquire. This even has the interior fittings still in place. The 20-seat tramcar built for the Deanshanger extension has also been obtained by the museum but is beyond restoration. Its shell awaits accurate measuring for future reference and will then, unfortunately, have to be destroyed.

A long-term aim of the museum is to mount a restored 100-seater car on a length of track that has been obtained. It is possible that further track may be obtained as Milton Keynes' roads are re-built. Although all the line was recorded as being lifted by 1933 it is believed that there are still sections buried beneath tarmac.

The tramways depot buildings survive as a furniture repository and as a printer's warehouse. The Deanshanger extension depot building survives on the corner of the old Deanshanger road at Old Stratford as part of a garage.

Now, Street Shuttle minibuses ply the route between the two towns. Their reliability is often no better than that of the lurching, creaking and snorting tram in its later years, and somehow they don't have the same charm. □

BLUE PULLMAN

Forerunners of the HST, photographed by
M. MENSING

The five Blue Pullman train sets, designed jointly by BR and Metropolitan-Cammell and introduced in 1959, were intended to emulate both airline and continental rail practice. Finely detailed, luxurious and air conditioned, they commanded supplementary fares and are today remembered as bringing modern standards of comfort to British rail travel. Two 6-car sets, all first class, were used on the LMR, and three 8-car trains worked the WR between Paddington, Birmingham (SH)/Wolverhampton, Bristol and South Wales.

The coach bodies measured 66½ x 9¼ feet and the power car at each end of the train anticipated the HST. The unreliability of the initial 1000hp NB/MAN diesel engines and a mediocre (albeit very quiet) ride had only marginal effect on the Pullmans' popularity with the public and the sets were really only rendered redundant by the advent of the Mark II loco-hauled carriage and Euston-Birmingham electrification.

ABOVE: Acock's Green, Birmingham, on 12th October 1961 — the 8-car Western Pullman approaches, forming the 1.00pm Birmingham Snow Hill-Paddington.
BELOW: The 4.50 pm Paddington-Wolverhampton (LL), the Birmingham Pullman, enters Solihull station on 31st May 1961.

TOP: February 1979 at Bedlay Colliery, Glenboig. The last non-preserved side tank in regular use in Britain, Hudswell Clarke 895 of 1909, as NCB No.9, works a train of empties. By the end of 1981, Bedlay had become the last haven of working steam in Scotland and the penultimate steam-worked colliery in Britain.
Photo: Derek Huntriss

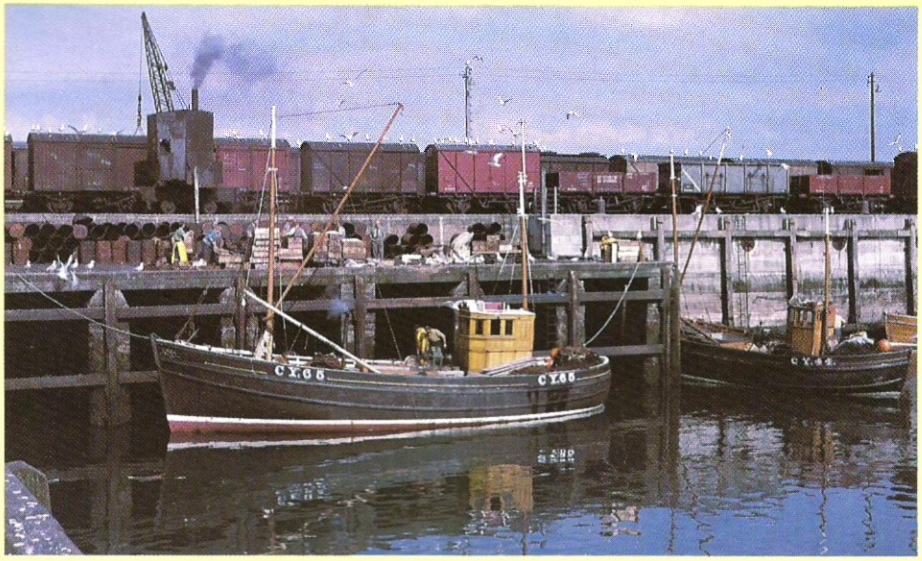
Scottish Industrials

BOTTOM: 1939-built Andrew Barclay 0-4-0ST No.1 *Dailuaine* poses in the sun outside its elegant shed at Dailuaine Distillery on 21st June 1967. A private line from the former GNS Speyside route between Carron and Aberlour served the distillery; coal, grain and barrels went in behind the little tank, malt whisky came out.
Photo: J. C. Gilks

Water's Edge

ABOVE: Brunel's decision to route the South Devon Railway along the water's edge between Exeter and Newton Abbot gave the publicity-conscious GWR a superb showcase for the beach-bound holiday train. At Dawlish on 24th June 1961, Castle 4037 *The South Wales Borderers* **heads for Plymouth with 'blood and custard' stock.** Photo: W. Potter

RIGHT, TOP: In the early hours of Friday, 5th April 1957, a serious fire broke out in the relay room of Cannon Street signal box causing chaos to the normal intensive suburban service. First efforts to restore services the following week were by means of hand signalling only for electric trains on the busier lines, steam services being diverted elsewhere or terminated or started short. The LMR provided a 47 lever frame for temporary use while a new signal box was being built and this enabled the full electric service to be resumed from 5th May. It had been intended to introduce the new Hastings DEMUs with the summer service in June but, because of the emergency, two peak hour services each way were introduced on the same day. The new signal box was commissioned in December 1957. On the day of the fire Class E1 4-4-0 31067 heads a van train on the bridge and H Class 0-4-4T 31553 stands in the station. In 1958-9 the station's overall roof, bereft of glass since the war, was dismantled but the ornamental towers, recently renovated, remain. Photo: R. C. Riley



RIGHT, BOTTOM: The West Highland Extension Railway, built to serve the Western Isles, opened in 1901. Mallaig was, and is, the end of the line and its quayside rail complex was permanently swept by the reek of fish emanating from boats, wagons and smoking houses. This 4th September 1959 view shows a train of vans being loaded, direct from fishing craft, by a travelling steam crane. The fish could hardly have been fresher, as the gulls doubtless appreciated. Photo: Peter Tatlow

FAMOUS FOUR

Classic flagships of the 'Big Four'

LEFT, TOP: SR Rebuilt Merchant Navy Pacific 35021 *New Zealand Line* **near Beaulieu Road with a Bournemouth express on 24th July 1965.** Photo: R. H. Leslie

LEFT, BOTTOM: A down parcels train nears Morecambe South Junction signal box, hauled by LMS Stanier Pacific 46201 *Princess Elizabeth.* Photo: K. R. Pirt/K.R. Photographics

ABOVE: Autumn sunshine highlights GWR 4-6-0 6029 *King Edward VIII* **as it tops Hatton Bank with the down Cambrian Coast Express, composed mainly of chocolate and cream stock. October 1961.** Photo: K. R. Pirt/K.R. Photographics

BELOW: LNER A1 Pacific 60144 *King's Courier* **speeds an up express of clean maroon stock near High Dyke in August 1962.** Photo: K. R. Pirt/K.R. Photographics

CRANES

ABOVE: Ex-NBR 0-6-0 64618 with the Thornton Junction breakdown crane waits just outside Elie station on the newly closed Leven to St Andrews section of the East of Fife line in August 1966. The J37 was to collect sister loco 64569 which had derailed on a crossover next to a road overbridge while engaged in recovery duties further up the line. Photo: Roy Hobbs

ABOVE: A 15 ton Cowans Sheldon steam travelling crane, built 1947, works in the engineer's permanent way yard, Leeman Road, York, on 9th June 1972. Such cranes were designed to assist in the assembly of prefabricated track. The recovery on the line of worn out plain track panels, and the laying in of new, was usually carried out by purpose-built track laying machines but the crane would be used at weekends for relaying points and crossings on site. Photo: Peter Tatlow

LEFT: A general view of the yard at Ryde Works, 1st October 1964. After the Southern Railway's rationalisation closed Newport Works, the Isle of Wight's engines were overhauled here exclusively. They were usually stripped in the yard using the 2 ton crane, No.425S, built at Kirkstall Forge. Its massive octagonal section jib, at less busy times, was swung over the wall into Wheeler's Orchard and picked apples. Photo: J. D. Gomersall

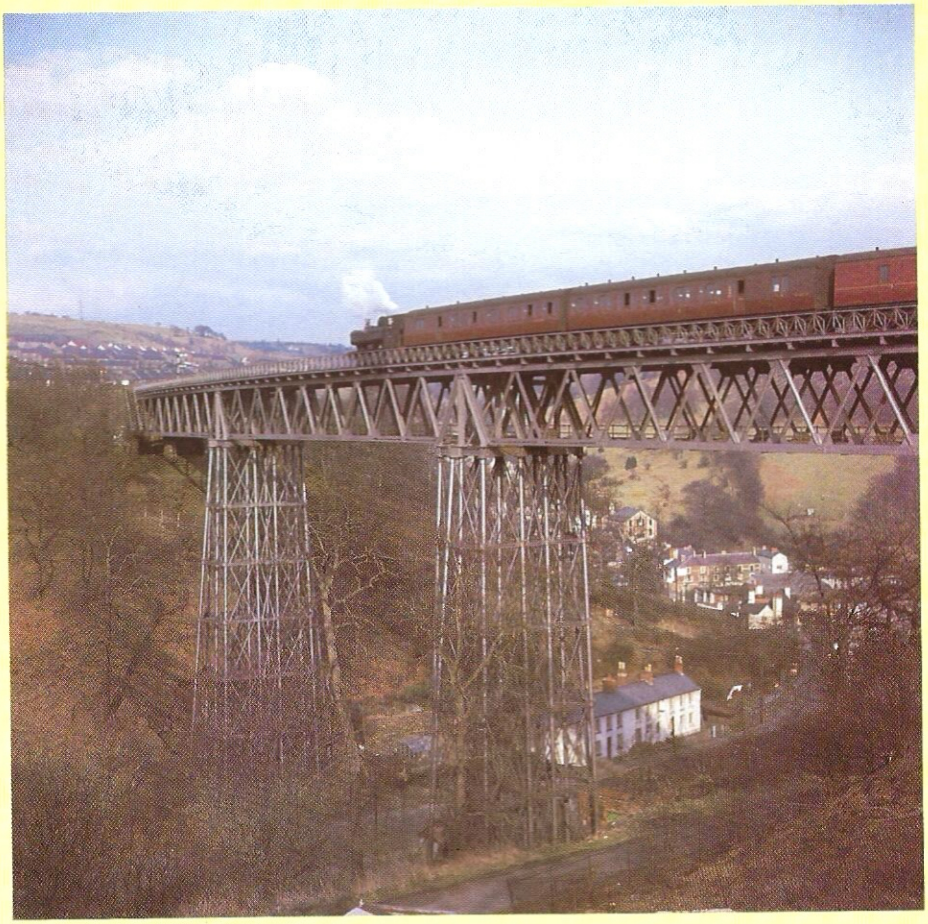
Warmly welcomed by the travelling public, the early multiple units were largely ignored by the enthusiast. Colour photos are rare

Multiple UNITS

TOP: A BRCW DMU (Class 104) waits for the minutes to tick away at Buxton on the last day, 5th March 1967, of the passenger service to Millers Dale. The prosperous spa town of Buxton was served by the LNWR and the Midland. The latter arrived in 1863 and its terminus, seen here, once featured a fine overall roof with a prominent semi-circular gable window. After closure, services transferred to the ex-LNWR station. Photo: A. Tyson

ABOVE: With the electrification of SR suburban lines from 1925 the LSWR system of having two non driving trailer coaches between two three-car powered units, was perpetuated. In a first step to eliminate this inflexible arrangement the SR built one new Bulleid 4-SUB set in 1941 and from the following year started reforming the former LSWR units into four-car sets. Full scale implementation of this policy could not take place until after the war when new steel trailer coaches were built to convert existing sets to four-car. In anticipation of withdrawal of the 2 NOL sets to enable their underframes to be used for new 4 EPB sets, a pool of 18 four car sets was formed to cover their absence. These were reformed from sets converted from LBSC overhead electric stock, the steel trailer having been removed and a former LBSC trailer from a withdrawn set substituted. These units, numbered 4501-18, were so reformed 1956-7, the last being withdrawn in January 1960. Set 4506 is seen on an up local service in Clapham cutting, 24th May 1958. Photo: R. C. Riley

ABOVE: Tenby station on 22nd August 1959. Large Prairie 4132 had taken over the 8.40 Paddington to Pembroke Dock at the junction at Whitland. In the BR era, tourist traffic to Tenby increased in the years 1948-59; through expresses were a feature of summer Saturdays and in 1953 the Pembroke Coast Express was introduced, a headboarded 4-6-0 working through with a rake of chocolate and cream stock. In 1959, Tenby station was partially rebuilt and diesels began to work the heavy Saturday trains; they finally ousted steam on regular passenger work through Tenby in September 1963. Complete emasculation of the line followed, but it saw a partial revival in the 1970s. Photo: Martin Welch



RIGHT: Class 5700 0-6-0PT 3716 restarts a Swansea (HS) to Pontypool Road train from Crumlin (HL) on 23rd April 1962 and eases onto the west end of 200ft high Crumlin Viaduct. Railway companies which aspired to run east-west in South Wales had to contend with a succession of deep valleys running north-south. The GWR's Pontypool-Neath line crossed four, and in some 12 miles included three tunnels and three viaducts. Crumlin, with two spans (1066 and 584ft), was constructed 1853-57 of braced cast iron tubes and girders which were less susceptible to wind buffeting than a stone structure of such a height. Coal was the line's life blood and in both world wars its strategic importance was recognised, not least by the Luftwaffe, which circulated its bomber pilots with a photo of Crumlin Viaduct. Photo: M. Mensing

IN WALES

A pair of Western tanks

Railway Archaeology:
THE CANTERBURY & WHITSTABLE RAILWAY

Fragments of a pioneering railway, traced and photographed by **MICHAEL PAGE**

The Canterbury & Whitstable Railway was the first passenger-carrying railway in the country, built rather beyond the capacity of the locomotives of the time. Nevertheless, it survived until 1952 and remains of it are still to be seen. This article sets out to describe them by tracing the six-mile route from Canterbury northwards.

The site of the original Canterbury terminus, in use only between 3rd May 1830 and 6th April 1846, may be entered from North Lane, just past the East Kent Bus Company offices, about 300 yards from Westgate, and entry is past a single level-crossing gate **(1)**. Inside the gate to the right, there is a dilapidated building dating from about 1843 **(2)**, which was originally an office and dwelling.

The whole site is now derelict, though the original line of track is still to be seen **(3)**. Traces of the coal depot and goods yard which took its place remain in the shape of rusty tracks and rickety buffers **(4)**, **(5)**.

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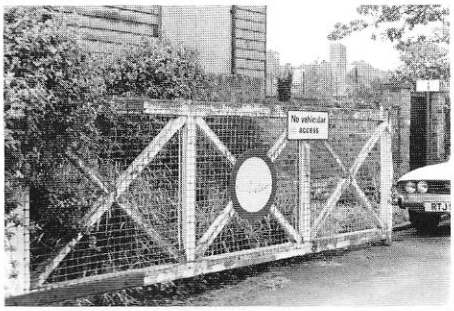

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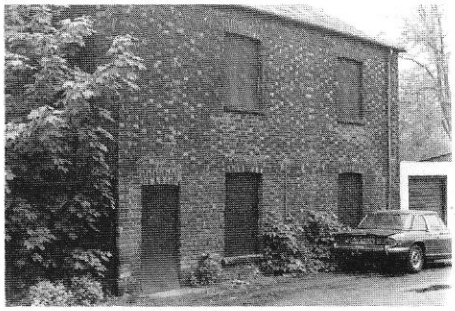

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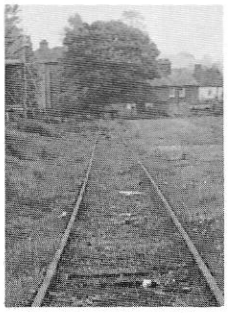

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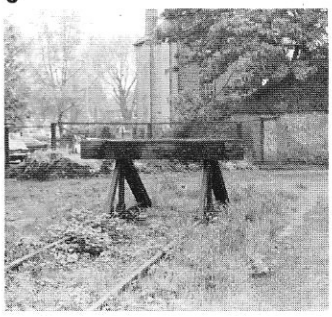

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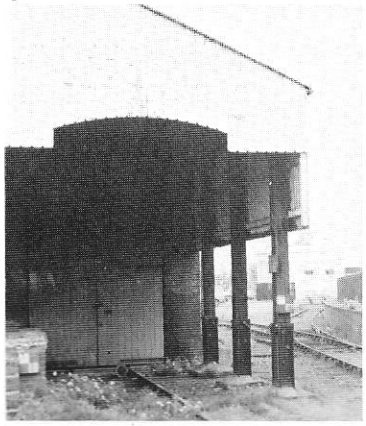

Following the line of track towards Canterbury West BR station, one comes, on the left, to a large disused goods shed **(6)**, **(7)**. The original line proceeded just to the right of the existing signal box **(8)** and across the present day Ashford-Margate line.

In 1846 the original station was abandoned and a diversion of the track was made to the new Canterbury West station. On the up side the rather fine original 1846 building has been preserved **(9)**, and there is a noteworthy station clock on the up platform **(10)**.

8

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The Canterbury & Whitstable Railway

continued

Readers are reminded that permission must be sought before entering private property.

Outside the station a plaque records the fact that the first season tickets in the country were issued from here in March 1834 **(11)**.

The Whitstable trains came into a bay at the country end of the down platform.

Surprisingly little, in view of the value of this large area of land, seems to have changed in the twelve years since H. P. White looked over this part of the line **(Ref 1)**.

From this new terminus the line curved sharply left onto a low embankment, the remains of which can be reached from Hanover Place. Some railway railings remain at the point the embankment is met. It, or a path beside it, is walkable until it reaches Beaconsfield Road, which has been built since the line was finally closed. From here it is necessary to turn left and then immediately right into St Michael's Road. Soon after entering a new estate, a path on the right leads up to the continuation of the embankment. This runs dead straight for nearly a quarter of a mile, and the southern portal of Tyler Hill Tunnel can be glimpsed ahead. To approach this, it is necessary to descend the right of the embankment into some school grounds which have encroached on what was the site of a loop line and signal box.

The fairly well preserved entrance to the tunnel is blocked, though it is possible to enter it **(12)**. The 38 chain 6 yard length of the tunnel is not passable, if only because a roof fall took place in 1974, which resulted in damage to university buildings above.

Since leaving the area of the West Station, the gradient has varied between 1/56 and 1/41, much too steep for *Invicta*, the original 12 hp locomotive, now displayed in shining glory in the Heritage Museum in St Peter's Lane, Canterbury **(13)**. Winding engines had to be employed and *Invicta* only managed to haul trains for about a mile. In fact, between 1839 and April 1846, the whole line was worked by cable. At that time the 0-6-0 Tayleur & Co locomotives, with cut down boiler mountings to allow them to work the tunnel, were introduced.

It is possible to scramble above the tunnel and to walk through the University grounds and down the other side, but a more decorous approach may be made from the village of Tyler Hill. Approaching from Canterbury, turn into Calais Road and take the first footpath on the left. This runs by the side of a little stream which passes, in about 300 yards, under the railway embankment by means of a brick-built culvert **(14)**. The north portal of the tunnel — again quite well preserved, though marred by graffiti — is about 200 yards to the left **(15)**.

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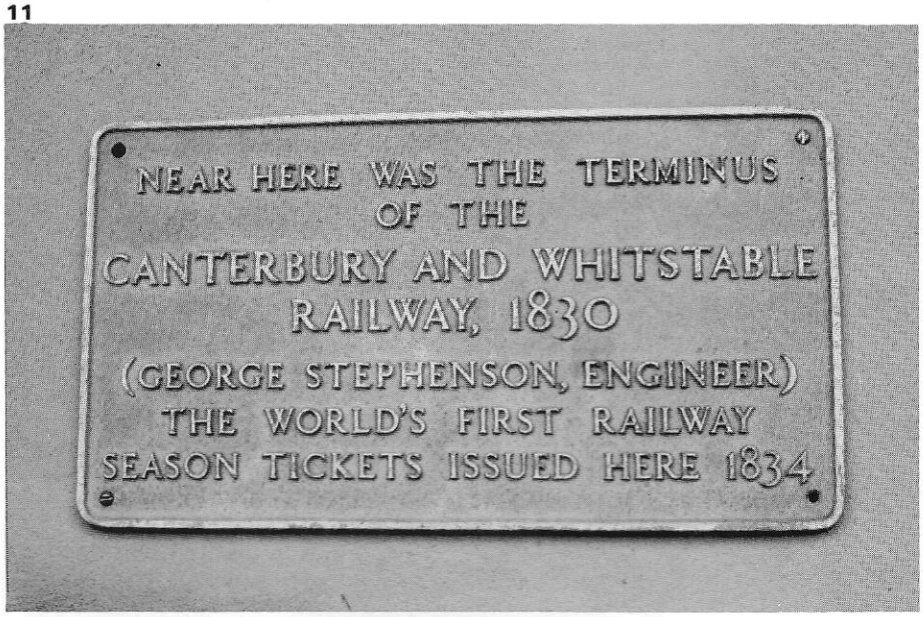

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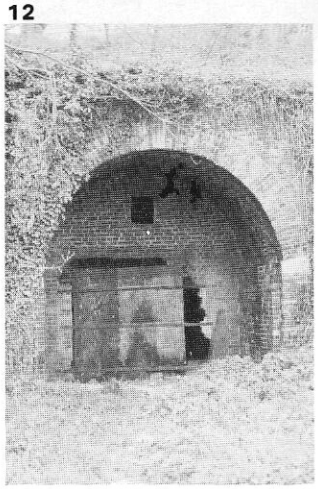

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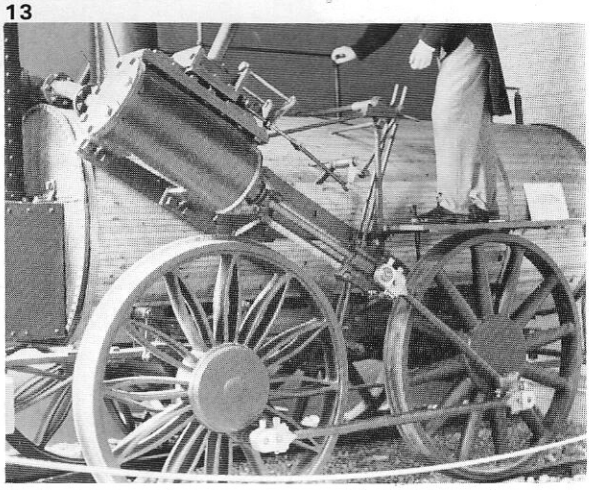

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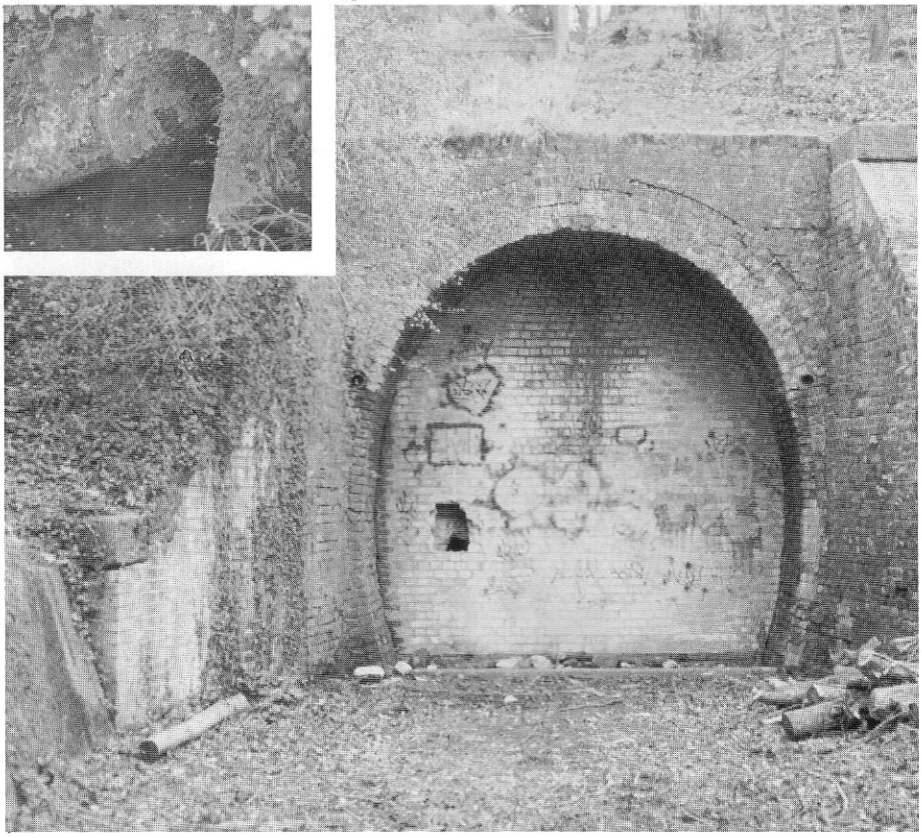

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The embankment is passable now for nearly threequarters of a mile, though in places the undergrowth is thick and the bottoms of the small cuttings are damp. However, it is worth persevering for some interesting remnants are to be seen. There is, for instance, a foot crossing for a footpath which runs from Tyler Hill to Blean village church, with what may be original wooden steps and the remains of a warning post **(16)**. Between here and the road ahead (once a level crossing), are many remnants of railway company fencing **(17)**, **(18)**, **(19)**, **(20)**, particularly on the left (western) side.

Emerging on to the road, immediately opposite is seen a driveway to 'Halt Bungalow'. This is the site of what was Blean and Tyler Hill Halt and the site of the Tyler Hill engine. Another footpath crossed the line here, and at this point there is a well preserved warning notice **(21)**.

According to Edwin Course (**Ref 2**), the existing 'Halt Bungalow' was probably built on the foundations of the stationary engine's house, though White **(Ref 1)** disagrees, arguing that it was probably converted from the engineman's cottage, and the original maps (on display in the Heritage Museum) would seem to support White.

This engine provided 25 hp and parts of it, or one of its two fellows, may be seen leaning up against a wall in Gas Lane, Canterbury, near to the castle **(22)**. The reservoir which provided water for the engine remains beside the bungalow, a circular pond about 300 yards in diameter **(23)**.

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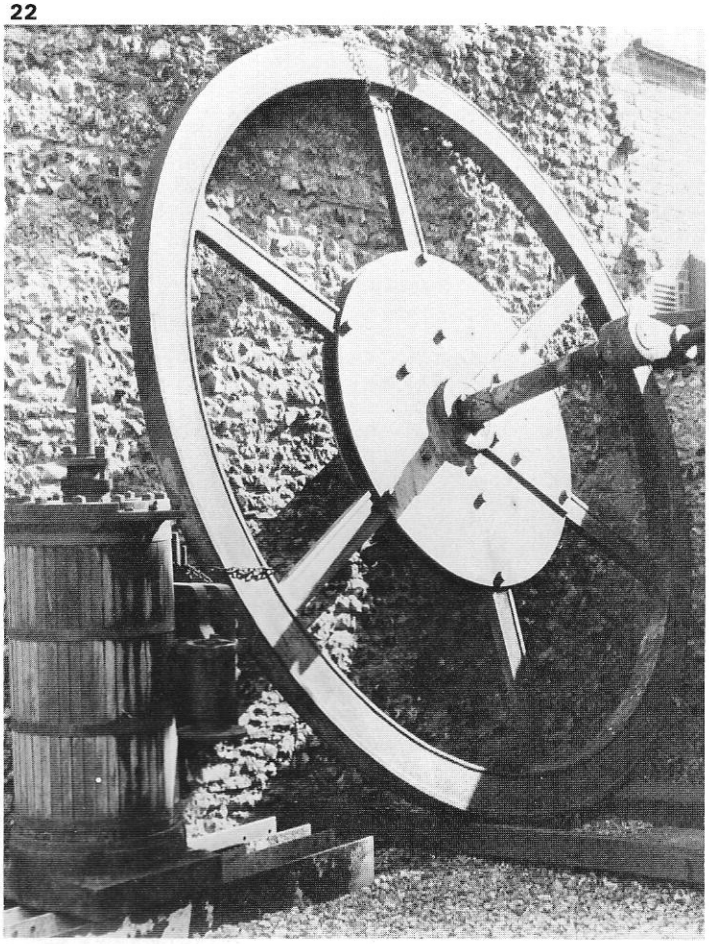

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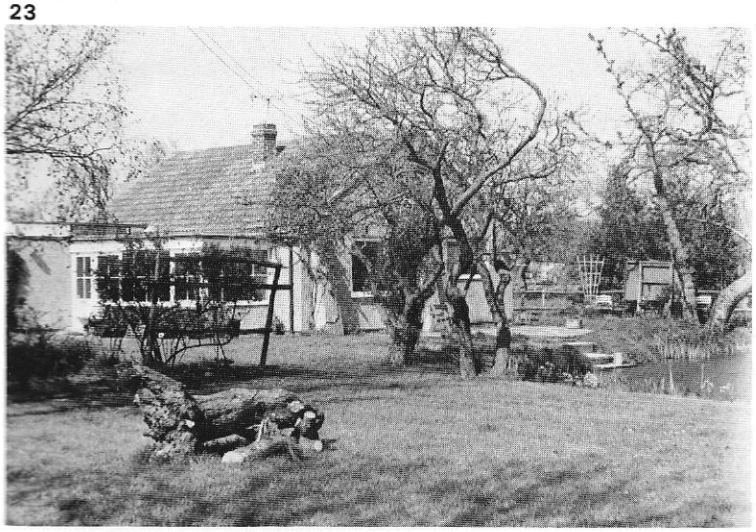

The next threequarters of a mile or so is on private land and from the map some of the track appears to have been grubbed up. To reach the next accessible stretch it is necessary to return to Tyler Hill and to take the Chestfield Road to the car park at Gypsy Corner, on Forestry Commission property labelled 'Clowes Wood'. Just north of the car park are two wide tracks and the lefthand one should be followed for about threequarters of a mile.

When reached, the line of the track is unmistakable and is now a well kept footpath. However, very little of archaeological interest remains on this particular stretch.

A quarter of a mile to the left the track disappears into the just-mentioned private land. 200 yards to the right, round a slight bend in the track, there is a widening of the track and through some trees may be seen a 30 metre-wide circular pond **(24)**. These are all that mark the site of the 25 hp Clowes Wood Engine and the loop line that once was there. The 'SR-type fencing' seen just to the north by White seems to have vanished.

The track — and we have now embarked on that part of it that was actually worked by *Invicta* — continues dead straight in a northerly direction for just about threequarters of a mile, until it is crossed by a farm track which seems to end it. However, if you turn left on the track and then immediately right, the line of the embankment is found again, no longer a pathway but nevertheless passable. It is worth doing this, for in about 300 yards there is a remnant of the railway that is not mentioned in any of the authorities I have consulted. It is the remains of a high culvert **(25)**. The purpose of this is not clear: no track passes beneath it. On the original map it appears to lie on the boundary between a Mr Hilton's land and common land belonging to Whitstable. Could it be that it was provided to give easy passage to Mr Hilton's patrolling gamekeepers?

150 yards beyond this the embankment ends abruptly, demolished in 1955, and open fields lie ahead.

About 300 yards further on is the probable site (according to White) of the third stationary engine, the Bogshole Engine of only 15 hp, placed there in 1832 to relieve horses of the task of pulling the train up a 1/50 gradient from Whitstable. This was the point that marked the northern end of *Invicta*'s abbreviated patch.

No trace of track or engine remains and the line of the former is not picked up again until Brooklands Farm is reached. To get there, go back to the farm track, turn left and follow it for fifty yards or so, before branching left along a well marked and easy track.

The line of the railway is picked up again running parallel to the road behind some bungalows on the left, to a road junction at South Street, where there were once two level crossings and South Street Halt. The

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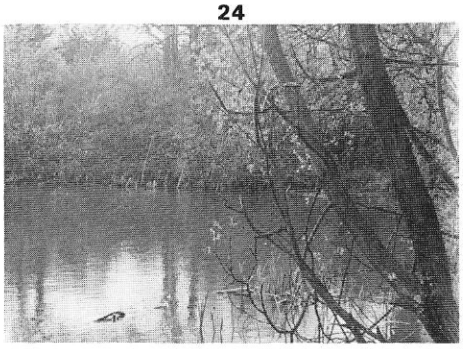

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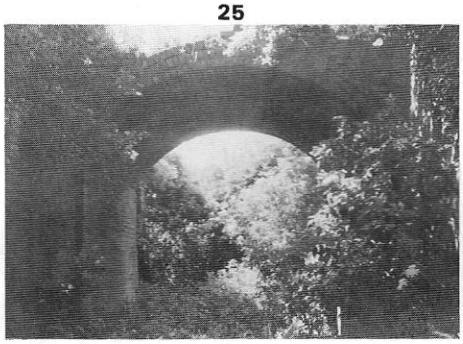

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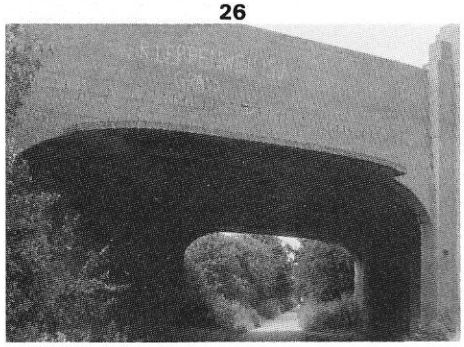

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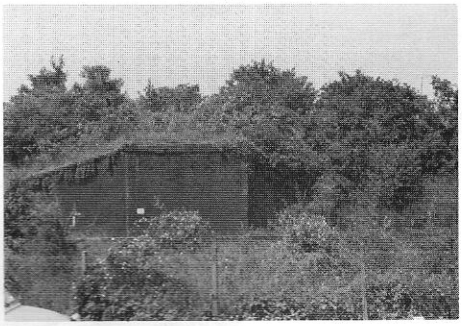

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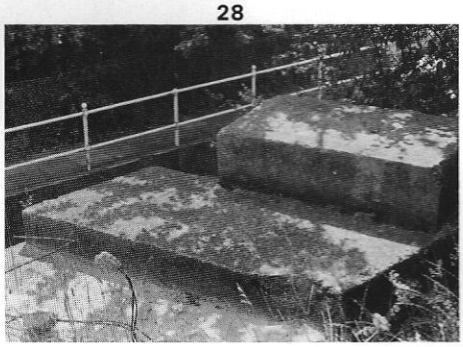

latter was commemorated as late as 1976, according to White, by 'The Halt Stores'. None of this remains. What does remain is a made-up footpath signposted 'Station and Town Centre'.

This path follows the line of the railway and passes beneath the Thanet Way by a very solid bridge, constructed in 1935 to take the new A299 Margate to Ramsgate road over the then still working railway **(26)**. The bridge is noteworthy in that it was clearly built to accommodate double track.

That this would have necessitated a fair amount of reconstruction at the Whitstable end of the railway is evident from the remains that are about to be described.

By following what is now a commuters' path, you come out of the trees looking at a main line railway. This is the BR North Kent Line, and to the left can be seen Whitstable Station. The road immediately in front was once crossed by a bridge known as Church Street Bridge. Local inhabitants believed this was the oldest railway bridge in the country and when it was pulled down in the interests of road widening, they took pains to collect bits of brick from what they fondly imagined was a historic construction. A minute piece of such brick may be viewed in the Whitstable Town Museum in Oxford Street, together with a stationmaster's bell, a railwayman's hammer and one or two interesting photographs.

Beyond the road is the main railway line and beyond that can be seen the further wall of the bridge that once took the Canterbury and Whitstable Railway (the 'Crab & Winkle') over the new LCDR line **(27)**. At the top of this wall may be seen the remains of Tankerton Halt, built in July 1914 for that rapidly growing seaside resort. From this a footpath ran down to the end of the down platform of the LCDR and a white painted, locked gate remains to be seen today.

The wooden platform of Tankerton Halt extended northwards, with the railway, across Teynham Road and a footpath descended to that road. It is still possible to examine parts of this bridge by scrambling up the side of the embankment on the north side of Teynham Road **(28)**.

This embankment continues for another 300 yards before petering out above an industrial yard.

That is the ignominious end of the line today: all further traces of it have gone. All, that is, apart from the harbour that was constructed to serve the railway and which opened on 19th March 1832. The site of the third Whitstable Harbour station is occupied by a Housing Association block of flats carrying a picture of *Invicta* on its nameboard.

The present day start of the line in Canterbury is marked by the presence of a bus company's office. The harbour end in Whitstable is distinguished by the fact that it is used for disembarking gravel for motorway maintenance. This is surely rubbing salt into the wound.

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2. Edwin Course, THE RAILWAYS OF SOUTHERN ENGLAND: SECONDARY AND BRANCH LINES, B. T. Batsford Ltd, 1974.
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STEAM TO KILLIN

Scotland was not short of beguiling branches, but the line to Killin was one of the best-loved. Rural, heavily graded and worked by single coach trains, it survived against the odds until 1965.

Described by
MALCOLM ROUGHLEY

The Killin Railway was a little line that dropped down sharply from a heavily forested hillside to a village nestling in a wide valley, not far from the placid waters of Loch Tay. During the autumn months of 1965, the last rites of this delightful railway were being played out after a severe landslip had effectively cut short its life. The closure of the main line from Dunblane to Callander and on to Crianlarich had already been announced by British Railways, and that of course included the tentacle of the Killin branch, which ran from Killin Junction to Loch Tay.

The date for final closure was 1st November, to include both passenger and freight traffic, but during the early hours of Monday 27th September, a landslide was discovered at Glenogle, between Balquidder and Killin Junction. Inspection of the slip revealed massive damage to the ballast and retaining wall and the possibility of a further fall from the high rocks overhanging the line. The Civil Engineers from Glasgow estimated a repair bill exceeding £30,000 and a month would be required to make good the damage. In the light of the impending closure, only 5 weeks hence, the decision was taken to abandon the line forthwith. And so, with an Act of God, the Callander and Oban Railway passed into history; and with it the Killin line.

Birth of a line

The County of Argyll, incorporating a great deal of western Scotland, had, during the early 1800s, been regarded as a rich area, accommodating fertile farms and supporting a flourishing fishing industry centred on the small but thriving village of Oban. In 1845, the Scottish Railway Gazette was quoted as describing Argyll as an 'El Dorado — a valuable tract of land requiring only the aid of the railway ....' This short-lived periodical was not alone in its view, and yet, strangely enough, the subsequent arrival of railways into the remoter parts of Scotland began with an outrageous prospectus entitled 'The Direct Glenmutchkin Railway', the brain-child of two young Glaswegian speculators, bent perhaps on fraud or merely a Victorian comedy! Nevertheless, money for prospective shares poured in and the company was oversubscribed ten times. The engaging story of the 'Glenmutchkin' debacle may be read elsewhere, suffice to say that its existence was short lived and the remote Highland glen reverted to its forgotten, peaceful role. However, the whole issue concentrated the minds of more realistic promoters, and it was finally the Scottish Central Railway, having the main line from Stirling to Perth, which looked west to Argyll as an area for

Brief sunshine races across the mountains beyond Killin station as 0-4-4T 55195 arrives from the direction of Loch Tay with the one coach train for Killin Junction on 28th March 1959. The signal is by Stevens & Sons for the Caledonian Railway. Photo: Peter Hay

Table 33 — **GLASGOW (Buchanan Street), EDINBURGH (Princes Street), STIRLING, KILLIN, BALLACHULISH and OBAN**

Week Days | Sundays

miles from Glasgow		am	pm	am	am	am	am	am	am	am	am	am	pm	pm	am	am	noon	pm	pm	pm	pm	pm	pm	pm	pm	pm	pm	pm	pm	pm
						E											S													
0	32 Glasgow (Buchanan St.) dep	..	11 10	..	4 X 0	7 15	..	..				7 55	..	..	..	10 0	11 15	12 0	..	..	2 15	..	4 25	..	5 0	..	6 22	8 15	..	..	10 E30	10 x 55	..
	32 Edinburgh (Princes St.) "		am			6 53						6 53				9 25	11 40			1 8		4 23		4 23		5 30				10 E15	10 x 33	
	32 Stirling	12 12	12 30	..	5 55 SC	8 15	..	..				8 50	..	..	..	11 12	12 15	1p 7	..	..	3 6	..	5 24	..	5 49	..	7 15	9 15	..	..	12A12	12p 1	..
35½	Dunblane dep	12 24				8 28						9 3				11 25	12 27	1 20			3 19		5 36		6 16		7 28	9 28			12A24	12 15	
39	Doune	12 35	12 46	..		8 35						9 10				11 32	12 34	1 27			3 26		5 43		6 23		7 35	9 35			12A35	12 22	
46½	Callander arr	12 57	1 8	..	6 28	8 48						9 23				11 45	1747	1 40			3 39		5 55		6 35		7 49	9 48			12A57	12 36	
	dep	1 1	1 12	..	6 22							9 33						1 49							6 43				9 53		1A 1		
55	Strathyre	1 22	1 29	..	6 39							9 49					Stop	2 5							6 59				10 9		1A22		
57	Kingshouse Platform	..	..	..	..							9C54						2C10							7C 4				10C14		..		
58	Balquhidder	1 35	1 38	..	6 45							9 58						2 14							7 10				10 18		1A35		
65½	Killin Junction arr	2 5	..	7 9								10 20						2 41							7 30				10 38				
	dep	2 10		7 14		8 12						10 22	1028	1115				2 43	2 46						7 32		7 40		10 46				
69½	Killin arr	..		..		8 26						..	1041	1128				..	2 59						..		7 54		10 59				
69½	Luib dep	2 16		7 20								10 28						2 49							7 38								
75½	Crianlarich (Lower)	2 38	2 29	7 30								10 38						2 59							7 48						2A38		
80½	Tyndrum (Lower)	..	..	7 47								11 2						3 11							8 0								
92½	Dalmally	3 32	3 13	8 10								11 24						3 34							8 23						3A32		
95½	Loch Awe	3 44	3 33	8 17								11 32						3 41							8 30						3A44		
104½	Taynuilt	4 21	4 13	8 36								11 50						4 1							8 50						4A21		
107½	Ach-na-Cloich	..	..	8 44								11 58					pm	4B 9							8 58								
111	Connel Ferry arr	4 40	4 25	8 51				8 49	9 46	12p 5							1 45	4 16			4 54		5 11				3 59	5			9 6	4A40		
	dep	4 48	4 37	8 58				8 57	9 54	12 7							12 30				5 15		5 20				8 13	9 8			9 15	4A48		
111½	North Connel	..	..	..				L	L								L																
113½	Benderloch	..	..	..				9B 6	10B 3								12R39						5B29										
121	Creagan	..	..	..				9 24	10 21								12 57						5 48								9 43		
124½	Appin	..	..	..				9 33	10 30								1 6						5 59								9 54		
129	Duror	..	..	..				9 46	10 43								1 19						6 12								10 7		
133½	Kentallen	..	..	..				9 56	10 55								1 29						6 22								10 17		
136½	Ballachulish Ferry	..	..	..				10 4	11 5								1 37						6 30								10 25		
138½	Ballachulish Z arr	..	..	..				10 11	11 12								1 44						6 37								10 32		
117½	Oban arr	5 7	4 55	8 48	9 10	..	..	..	..	12 29	..	..	..	..	..	2 10	4 36		..	5 32	..	..	..	8 30	9 25	..	..	..	..	..	5A 7	..	..

A Except Mondays
a am
B Until 30th September inclusive calls Ach-na-Cloich unconditionally. Commencing 1st October calls Ach-na-Cloich to take up when passengers on platform. Luggage and bicycles not dealt with
C Stops to set down on notice at Strathyre; luggage and bicycles not dealt with
E or E Except Saturdays
J Stops to set down from stations East of Dalmally on notice at that point
K From Glasgow (Central) Station
L Calls on notice to take up or set down
M From Glasgow (Buchanan St.) on Sunday nights 22nd September, 1957, and from 18th May, 1958. From Glasgow (Queen St.) on Sunday nights from 29th September, 1957, until 11th May, 1958, inclusive
p pm
Q Calls at Barcaldine Siding
R Stops at Barcaldine Siding on notice to set down or take up
RC Restaurant Car
S Saturdays only
s Saturday night
SC Sleeping Car
TC Through Carriages
X Stops to set down passengers except Saturdays on notice at Stirling
Z Ballachulish is the Station for Glencoe and Kinlochleven
2 Second class only

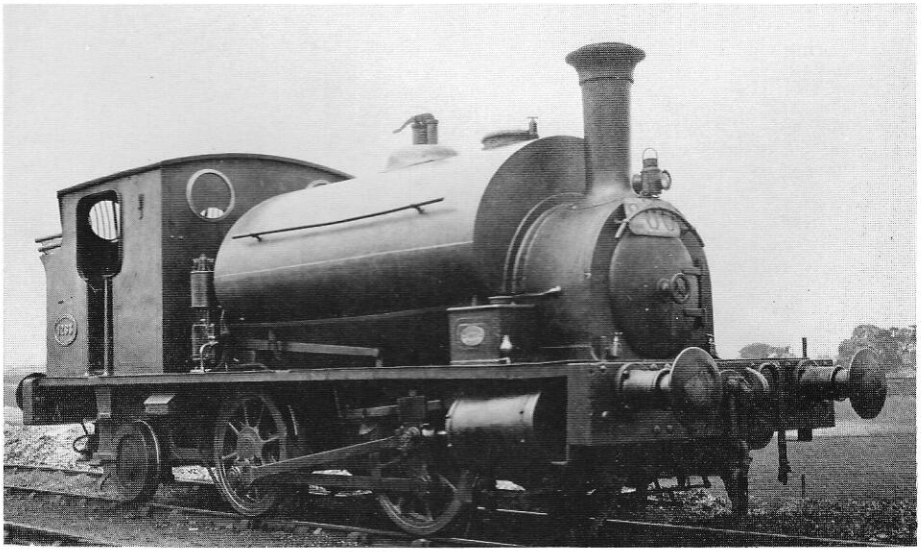
For OTHER TRAINS between Crianlarich and Tyndrum, see Table 34

expansion.

The mountainous country that lay between the Central Scottish plain and the western sea began in the vicinity of the small agricultural town of Callander, and it was to this community that the SCR opened a railway line in 1858, with a grand design to eventually reach Oban by way of several valleys. However, during a routine board meeting in 1864, the SCR learned of the formation of the Callander and Oban Railway, a separate undertaking, based in Glasgow, from whom they had received a letter requesting support and advice. The SCR agreed to participate in the scheme and offered some £200,000 towards its construction, which would take the proposed line through Glen Ogle and Glen Dochart to Crianlarich, from where it would continue down Strathfillan, negotiate the Pass of Brander and skirt the southern shores of Loch Etive before reaching Oban. The SCR was particularly keen on the new proposals, as they would open up the Hebridean trade of fish and cattle. Work began in earnest after the Bill had been passed in July 1865, but work of an administrative nature only.

Although the Scottish Central Railway was absorbed by the powerful Caledonian Railway in 1865, the latter company were not too keen to spend their shareholders' money on wild schemes in the Central Highlands. The fortuitous arrival of a certain John Anderson, as secretary to the Callander and Oban Railway, allowed the company to combat Caledonian antipathy towards them, and after some serious financial crises during 1866, construction of the line westwards from Callander began as a separate undertaking and with, at that time, no physical connection with the Caledonian. Life over the ensuing four years was difficult enough, with recurring financial difficulties and problems both with the navvies and the construction itself. Nevertheless, by 1870 the 17½ mile section to Killin from Callander was opened, although the station at Killin was in effect Killin Junction, with the vilage some 4 miles away.

An end-on junction was made at Callander, and the Caledonian Railway agreed to work the line, in accordance with the prospectus. It was to take the C&O another ten years — and plenty of heartache for John Anderson, whose efforts went on undiminished — for the railway to finally reach Oban in June 1880, a ceremonial opening taking place on the 30th of that month. In attendance was the *PS Lily*, a mail boat belonging to the London and North



Caledonian Killin 'Pug' 1263 in 1910. This 0-4-2ST was built in 1885 along with a sister engine to work the branch. Photo: M. Roughley collection

Western Railway, which had, for that day, been diverted from her usual Holyhead to Dublin run in order to convey guests to the great gala.

John Anderson, the father of the C&O, has since passed on into the history books, but he will be remembered for the 'Anderson's Piano', a strange collection of wires along the line in the Pass of Brander, which when struck by falling boulders from the high slopes, activated signals to danger, thus warning approaching drivers of possible obstruction.

A railway to Killin

The good people of Killin, meanwhile, had noted with interest the arrival of the railway high up the hillside and undeniably remote. The Marquis of Breadalbane, the Laird of the district in the 1880s, requested a branch from the C&O down to the village proper, which was refused. He next approached the parent company, the Caledonian, and was rejected again. It was clear, he surmised, that if Killin village was to be placed upon the railway map, they would have to do it themselves. Considering that Killin lay in a great wide valley, close to waterfalls and the beautiful Loch Tay, upon which the C&O operated tourist steamers, their decision not to build a line was strange. Breadalbane, a man of not inconsiderable importance, was aware of the transport difficulties that lay within his lands, and desired a direct railway connection to Loch Tay, in order to augment the steamer traffic. With the C&O main line virtually within sight of the village down in the valley, he was determined to get the railway built.

The first meeting of the proposed Killin Railway took place in August 1882, under the chairmanship of Breadalbane himself, and his intention was to raise money for the construction of a 5½ mile line from the C&O down to Loch Tay. It was estimated that the cost would be in the region of some £28,000 but by early 1883 only about £20,000 had been raised or promised. Changes to the plans were suggested, including terminating the line at Killin village and canalising the Lochay river from Loch Tay up to Killin itself. Further problems were encountered when the Caledonian Railway insisted on over £4,000 for the newly built station layout at Killin Junction.

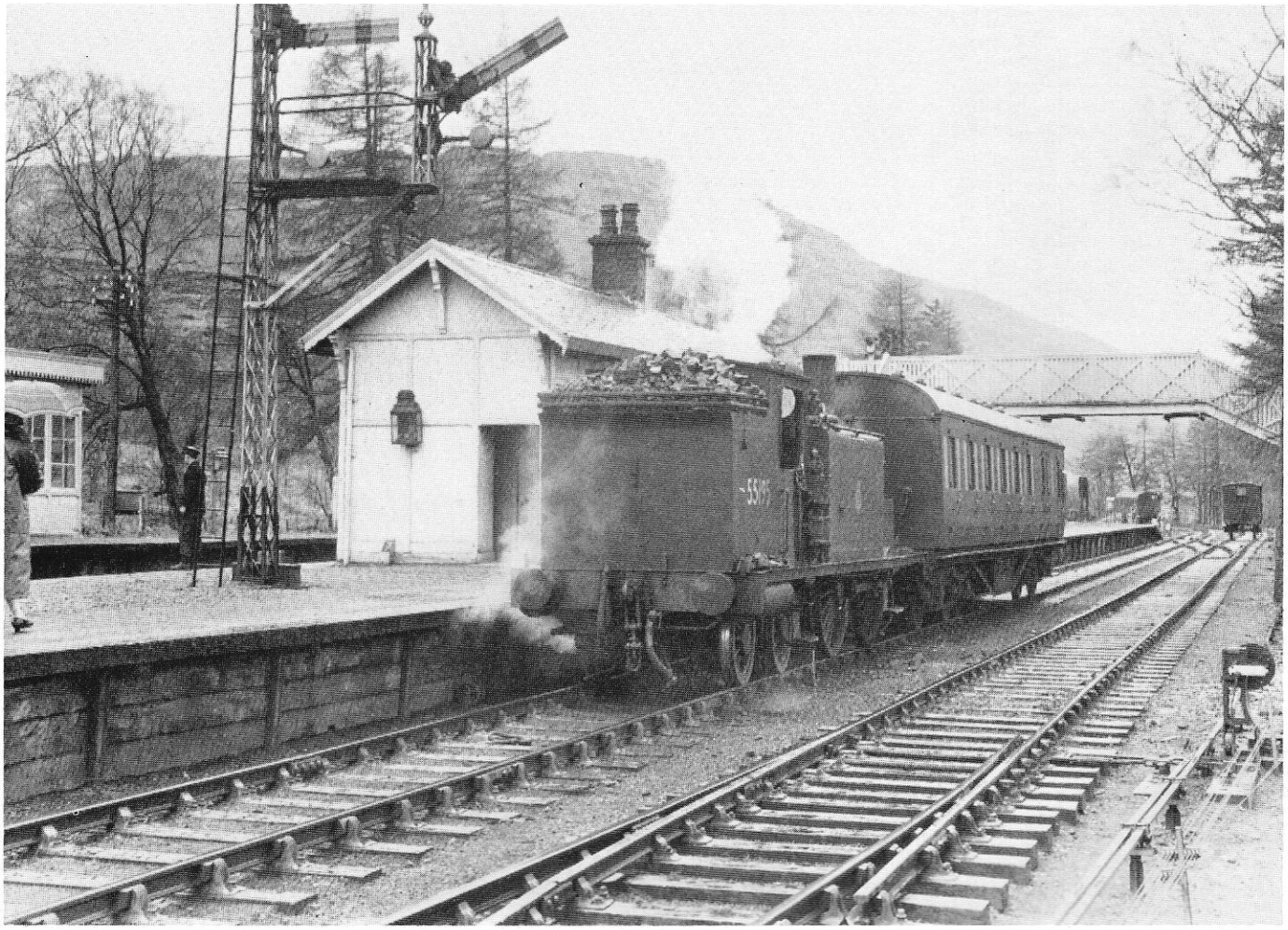
The newly formed board of the Killin Railway appointed as contractor Mr Macdonald of Skye, who had tendered a mere £13,500 for the actual building of the line. This had been accepted with some caution as the price was deemed to be rather low. In fact, Mr Macdonald had indeed grossly underestimated the costings and although work on the line began in July 1883, it was not long before problems arose. Both the local rivers had to be crossed and the construction of the bridges presented difficulties. The engineer for the company, John Strain, suggested using the new concrete technique which was used to span the River Dochart in the form of a miniature viaduct of 5 arches, but delays to the delivery of the concrete and the imminent bankruptcy of Macdonald dragged the proceedings into late 1884.

The original contract to Macdonald was dissolved and a new contractor was appointed to the task of finishing the little railway. Progress was inevitably slow and as the bills came in there was always a struggle to pay them. Even the minor details had to be assiduously worked out: tickets, station furniture, staff apparatus and a variety of general stores, all pre-requisite to the opening of the railway. An amusing incident may be related from the early records. When the Caledonian Stores Department delivered the station nameboards for the new Killin Junction, the wooden boards depicted only the word 'Junction'. When the Killin Company queried this, they were told that they would easily be able to join the word 'Killin', which would in any event have to be removed from the old station, with the word 'Junction', and thereby saving a little hard-earned cash! As work progressed the new formation at Killin Junction was laid out and the original station, some 2 miles further east, was re-named Glenoglehead. This latter station, however, was closed to passenger traffic as early as 1891, although it functioned as a railway servants' halt for many years thereafter.

The grand opening of the branch took place in March 1886, when a special train left Callander with a bevy of C&O dignitaries aboard and ran to the Junction and down to Loch Tay. The public timetable came into effect from

ABOVE: The terminus at Loch Tay on 28th July 1931, facing the dead end. The engine is Caledonian 171 Class 0-4-4T as LMS 15103, the last survivor of the Drummond 0-4-4Ts.

BELOW: Stovepipe-fitted Caledonian 'Jumbo' 0-6-0 57450 at Killin Junction branch platform on 19th June 1952. This view is looking towards Callander; the line to Killin diverged behind the signal box and the run-around loop is at the left. Photos: H. C. Casserley



ABOVE: A vintage oil lamp and a veteran locomotive at Killin Junction at Easter 1959. The branch train is ready to leave behind Caledonian 0-4-4T 55195 carrying connecting passengers from the Glasgow (Buchanan Street) to Oban train. Photo: Peter Hay

BELOW: The new order of motive power at Killin Junction in August 1965. The crew of BR Standard 2-6-4T 80093 pose for the camera prior to taking the afternoon one coach train down to Killin. Note the bracket junction signal situated on the platform and the wooden overbridge. Photo: J. Kernahan

1st April of that year and the railway settled down to a typical branch line existence. It was operated throughout by the parent Caledonian Company but the Killin Company, still nominally independent, continued to hold its twice yearly meetings in Killin village. They never referred to their railway as a branch line; it was their own railway and the fact that it was attached to the main C&O at a junction seemed to be an irrelevance!

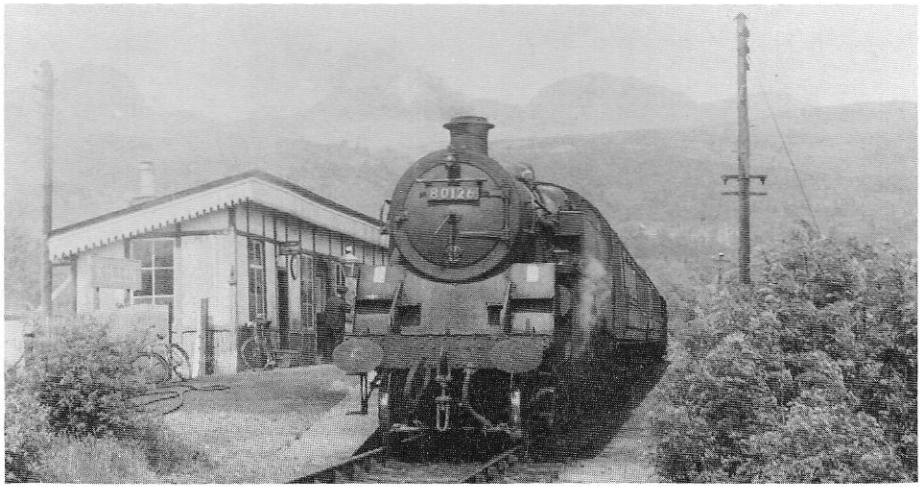
Description of the route

The line was some 5½ miles in length from the junction down to Loch Tay, dropping sharply from the hillside down to a wide plain and then running more or less in a straight line to the edge of the lake. A steep gradient of 1:50, which was encountered almost on leaving the Junction, took the single track down for some 4 miles on a continuous drop, which only levelled out just short of Killin station platform, which was a simple timber structure with wooden accommodation. Thereafter, the line ran on the level to Loch Tay. The station building at Loch Tay was similar to that at Killin, comprising a single wooden platform. During the late 1890s, a siding was put in at a place called Acharn, in order to supply local farmers.

Killin Junction had been built without any real road access, being an interchange station only. The signalling on the Killin branch was achieved initially with signals at the Junction and at Loch Tay, but none at Killin. In later years, communication was by telegraph

and subsequently telephone. The signals at Loch Tay did not survive the First World War and by 1960 the only signals operative on the branch were the sets guarding the approach to Killin Junction, which was controlled by two signalboxes, East and West.

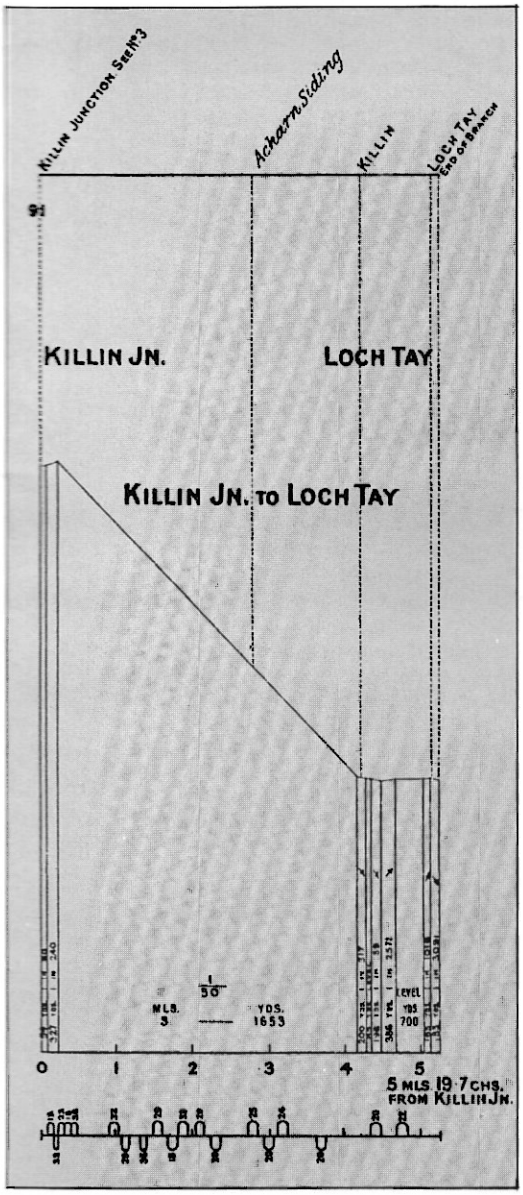
Killin station had no loop and trains terminating there had to adopt a novel way of running round their trains. On arrival at the little station, the locomotive would propel its coach back up the gradient for a distance, uncouple, and the engine would run forward and then into a three road siding area. The coach was released by gravity to run past the entrance points, from where the locomotive emerged to re-couple the coach and draw into the platform. This operation lasted until the closure of the line. At Loch Tay, there was a loop and coaling and watering facilities and usually the whole train ran down the line after re-marshalling. Although passenger services to Loch Tay ceased in 1939, the layout remained in use until the end. A small single road shed, built partly into the hillside, was constructed for the Killin 'Pug' and the adjacent Caledonian water column was still in use in 1965. In latter days, coaling at Loch Tay was primitive: a coal truck was left on the overgrown loop line, alongside which the

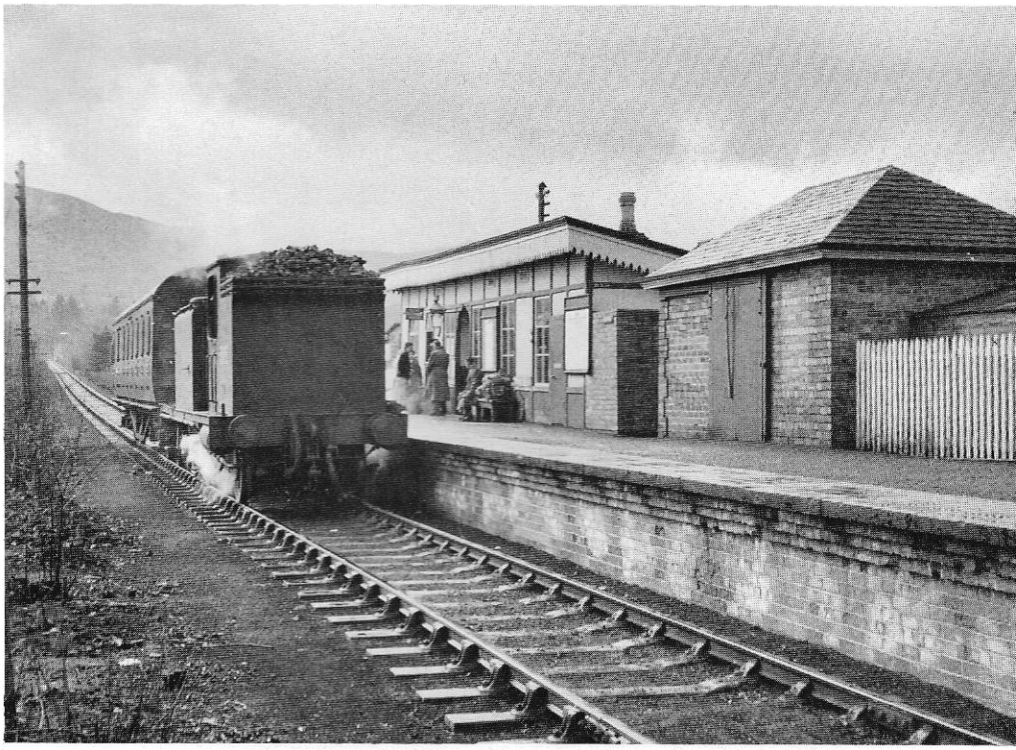


ABOVE: Standard tank 80126 at Killin on 6th June 1963 with a train for Killin Junction. Photo: H. C. Casserley

BELOW: Killin station from the forecourt, showing the simple wooden structure. A July 1965 view. Photo: M. Roughley

BOTTOM: The platform awning at Killin gave little shelter to passengers when it rained but on 28th March 1959 there was a brief respite from the downpour and 55195 arrives from Killin Junction as the sun breaks through the clouds. Photo: Peter Hay





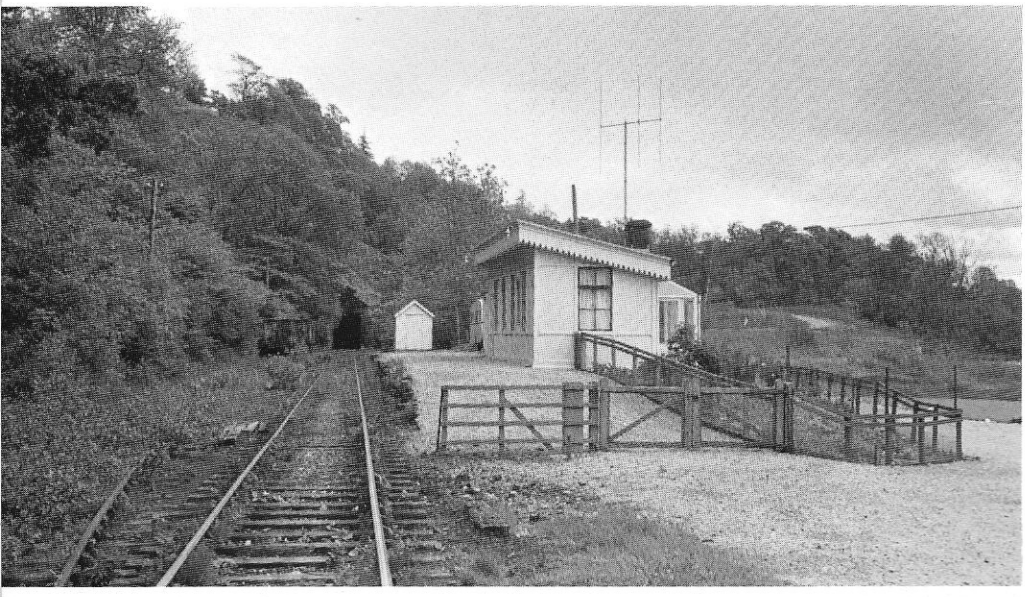
locomotive would draw, and the fireman shovelled the fuel across the gap! The coal truck was brought down on the intermittent freight service, which served the line after World War Two, usually originating in Stirling.

Operation

A generous service was offered on opening, with 8 return trains each way, four being extended to Loch Tay. From the beginning there were no freight trains in the real sense, any goods traffic being taken down the line on a mixed working and this operation, too, lasted until the end. As the years rolled by, the villagers became attached to the 'Wee Train' as it blasted up the hill to the junction, and trade was developed to include many items, from cattle to crops and from timber to groceries. School children, too, began to use the train, particularly after the Second World War, as they travelled to Callander, and this fact was strongly presented by the locals to the British Railways Board when closure was announced. It carried little sway. Visitors came in their thousands over the years. They came to view the magnificent scenery, to ride the steamers or stay in the village.

Killin and Loch Tay — **Branch timetable, 1948**

Glasgow (Buchanan St.)	lev.	a.m. 4 0	—	—	—	a.m. 8 0	—	—	—	a.m. —	—	—	—	p.m. 12 12	—	—	p.m. 5 10	—	—
Edinburgh (Princes St.)	"	.	.	.	.	6 53	—	—	—	—	—	—	—	11 45 a	—	—	4 25	—	—
Oban	"	6 5	—	—	—	—	—	—	—	9 12	—	—	—	12 5	—	—	5 15	—	—
Killin Junction	lev.	8 12	.	.	.	10 30	.	.	.	11 18	.	.	.	2 50	.	.	7 35	.	.
Killin	arr.	8 25	—	—	—	10 42	—	—	—	11 30	—	—	—	3 2	—	—	7 48	—	—
Killin	lev.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Loch Tay	arr.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
		a.m.	.	.	.	a.m.	.	.	.	a.m.	.	.	.	p.m.	.	.	p.m.	.	.
Loch Tay	lev.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Killin	arr.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Killin	lev.	7 45	—	—	—	10 5	—	—	—	10 55	—	—	—	1 42	—	—	6 55	—	—
Killin Junction	arr.	7 58	.	.	.	10 19	.	.	.	11 8	.	.	.	1 56	.	.	7 8	.	.
Oban	arr.	—	—	—	—	12 27	—	—	—	—	—	—	—	4 37	—	—	9 25	—	—
Edinburgh (Princes St.)	"	10 59	.	.	.	.	.	.	.	2 22	.	.	.	4 37	.	.	9 56	.	.
Glasgow (Buchanan St.)	"	10 14	—	—	—	—	—	—	—	1 32	—	—	—	4 24	—	—	9 X 31	—	—



TOP: Killin station in July 1965. 80126 waits in the little yard, approached by a three-way point. The single coach is running past the station by gravity. The yard has a three-legged crane and loading gauge; the vans were brought in for potatoes. Photo: M. Roughley

ABOVE: Loch Tay station in 1965, showing the simple wooden platform, heavily overgrown loop and small engine shed. Once, a line ran down to the pier to the right, but no trace of it remained at this date. Photo: M. Roughley

Trains invariably consisted of a single coach, pulled by a diminutive Caledonian tank engine, built especially for the Killin line in 1885 by Dugald Drummond. Two engines were delivered but they were found to be too light. The 'Pugs' were taken away from the line in 1889 and stronger engines were allocated. One of the Killin Pugs survived into World War Two, being renumbered as 15001, and its short 0-4-2ST arrangement was ideal for working tight curves in the Glasgow yards. In later years the Caledonian 419 Class, 0-4-4T were common sights on the Killin run, being finally superseded by the enormous Riddles Class 4MT Standard 2-6-4T locomotive in early 1961.

The Killin Railway Company remained an independent unit until 1923, when amalgamation with the LMS was achieved. The line changed little over the years, with only slight modifications to the existing layout and buildings, apart from a new engine shed which was required after a fire at Loch Tay in 1917, for which £120 was paid out from the insurance! A visit in 1963 would have revealed little change from those early years. Most freight was carried on the mixed trains, although traditional freight trains would run if required. Freight traffic ceased in 1964.

After nationalisation in 1948, passenger traffic declined and the number of trains were reduced to 5 each way between Killin and the Junction. The line was visited in latter years by diesel units, which sometimes included the branch line on scenic tours from Glasgow. The mainstay of the line in the 1960s was 80126, allocated to Perth depot and sub-shedded at Killin, together with a peeling ex LMS non-corridor coach, which apart from the school children, carried few of the local people any more; the car was paramount.

On the morning of 27th September, the little train puffed up the 1:50 grade to the interchange platform at Killin Junction, but, due to the landfall at Glenoglehead, there was no trade. The train clanked slowly along to Crianlarich and into history. The Killin branch was dead.

The tracery of the track-bed can still be seen today, as can the Loch Tay station, privately owned, together with other relics of this fascinating little railway. □

Continuing our series of edited extracts from the **GREAT WESTERN RAILWAY'S GENERAL APPENDIX TO THE RULE BOOK,** *produced for the instruction of the company's employees*

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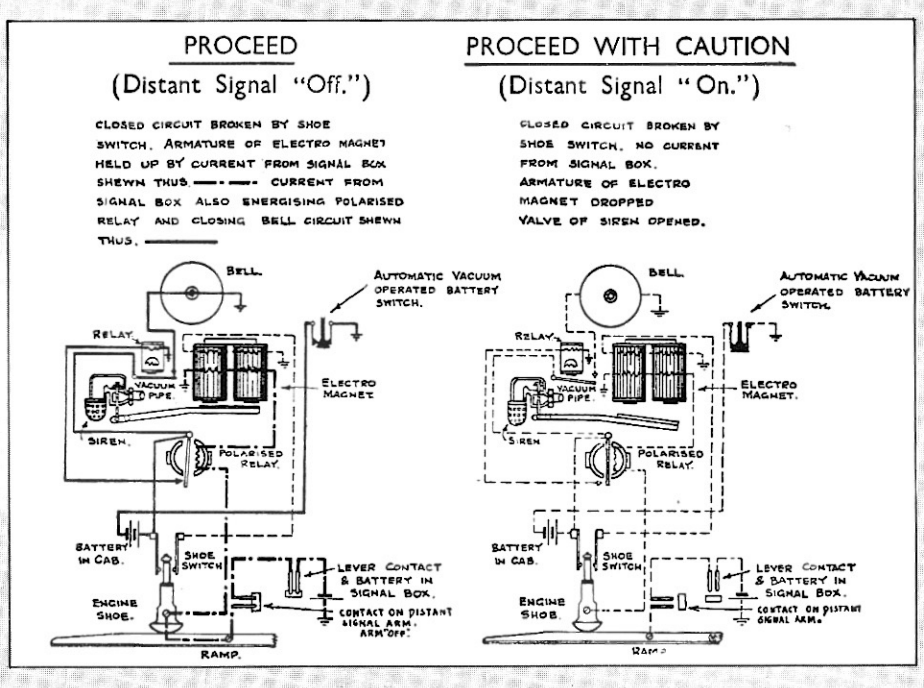

PROCEED
(Distant Signal "Off.")
CLOSED CIRCUIT BROKEN BY SHOE SWITCH. ARMATURE OF ELECTRO MAGNET HELD UP BY CURRENT FROM SIGNAL BOX SHEWN THUS. —·—·— CURRENT FROM SIGNAL BOX ALSO ENERGISING POLARISED RELAY AND CLOSING BELL CIRCUIT SHEWN THUS. ———
BELL.
AUTOMATIC VACUUM OPERATED BATTERY SWITCH.
RELAY.
VACUUM PIPE.
ELECTRO MAGNET.
SIREN.
POLARISED RELAY.
BATTERY IN CAB.
SHOE SWITCH.
LEVER CONTACT & BATTERY IN SIGNAL BOX.
ENGINE SHOE.
CONTACT ON DISTANT SIGNAL ARM. ARM "OFF."
RAMP.
PROCEED WITH CAUTION
(Distant Signal "On.")
CLOSED CIRCUIT BROKEN BY SHOE SWITCH. NO CURRENT FROM SIGNAL BOX. ARMATURE OF ELECTRO MAGNET DROPPED VALVE OF SIREN OPENED.
BELL.
AUTOMATIC VACUUM OPERATED BATTERY SWITCH.
RELAY.
VACUUM PIPE.
ELECTRO MAGNET.
SIREN.
POLARISED RELAY.
BATTERY IN CAB.
SHOE SWITCH.
LEVER CONTACT & BATTERY IN SIGNAL BOX.
ENGINE SHOE.
CONTACT ON DISTANT SIGNAL ARM.

TECHNICAL

OBJECTS ACHIEVED BY THE SYSTEM

1. The primary object of this system is to give audible warning on the engine when the train is approaching a distant signal, or passing a lower distant signal fixed below a 'Stop' signal, and the distant signal being in the 'On' (Proceed with caution) position, also, in the event of this warning being disregarded, to apply the brakes automatically, so as to ensure the train being pulled up before it reaches the home signal.

Another and distinctive audible indication is also given on the engine when the distant signal is 'Off' (Proceed). The value of this latter indication is that it facilitates the running of the train when the semaphore signals cannot be seen during fogs and snowstorms.

AUDIBLE SIGNALS

2. The audible signals given are the sounding of a siren indicating 'Proceed with caution', and the ringing of a bell, indicating 'Proceed'.

LOCATION AT WHICH AUDIBLE SIGNALS ON ENGINE ARE OPERATED

3. The point at which the audible signals are given is usually about 440 yards before the distant signal is reached. Where, however, the distant signal is a lower arm on a 'Stop' signal, the audible signals are given just as the 'Stop' signal is passed.

APPARATUS ON PERMANENT WAY

4. The apparatus fixed on the permanent way for operating the audible signals on the engine is a ramp about 40 feet long, which is fixed between the running rails, and is made up of a steel bar mounted on a baulk of timber. The ramp at its highest point is 3½ inches above rail level.

APPARATUS IN SIGNAL BOX

5. A telegraph wire connects the ramp with a switch in the Signal Box through a contact attached to the distant signal arm. The switch is attached to the lever controlling the distant signal, so that when the lever is operated to place the distant signal to the 'Off' (Proceed) position, an electric battery is connected to the ramp, providing the signal has correctly responded to the movement of the lever.

When the lever is replaced to restore the signal to the 'On' (Proceed with caution) position, the battery is disconnected from the ramp. The ramp is, therefore, electrified when the distant signal is 'Off'. When the distant signal is 'On' the ramp is electrically 'Dead', as is also the case in the event of the battery failing, or the arm not responding correctly to the lever, or the telegraph wire breaking.

APPARATUS ON THE ENGINE

6. The apparatus on the engine comprises a contact shoe with switch, and an electrically controlled combined brake valve and siren, and an electric bell, in the engine cab.

The contact shoe is fixed in the centre line of the engine and projects to within 2½ inches above rail level, in which position it is held by gravity assisted by a powerful spring. It is capable of being raised vertically, and being in line with the ramp it is lifted one inch whenever a ramp is passed over. This lift of one inch is utilised for effectively opening a switch attached to the contact shoe. The switch is connected with the electrically controlled brake valve and siren in such a way that whenever it is opened it results, except as hereafter described, in air being admitted through the siren and the brake valve to the train pipe, sounding the siren and applying the automatic brake on the train. This happens when an engine passes over an unelectrified ramp. The Driver, by acknowledging the warning given by the siren can stop the siren sounding and stop the application of the brakes. This he does by raising a handle provided for the purpose.

When the ramp is electrified by the distant signal being placed in the 'Off' (Proceed) position, the brake valve is not released by the engine passing over the ramp, but the bell on the engine rings instead. The contact shoe is lifted as before, but the current is picked up from the electrified ramp, the effect of which is to cut out, or render inoperative, the switch attached to the contact shoe; so that, although the switch is opened it does not release the valve admitting air through the siren to the train pipe.

When an engine is at a stand and remains thus for more than half an hour, the automatic battery switch operates and cuts the battery off from the cab apparatus, thus economising battery power. This battery switch is operated by the vacuum maintained in the engine reservoir. When the vacuum is restored by the Engineman the automatic switch pulls up and closes the battery circuit and energises the cab apparatus.

FAILURES

7. In the event of a failure to pick up the electric current when a ramp is passed over, the effect on the engine apparatus is the same as though the ramp was not electrified, that is, the valve admitting air through the siren to the train pipe is opened, and the automatic brake is applied on the train, thus ensuring that any failure of the electrical apparatus shall produce the warning indications irrespective of the position of the signals.

SINGLE LINES

8. On engines fitted for working over single lines, the apparatus is so arranged that the indications in the cab are only given when passing over the ramps applicable to the direction in which the train is travelling.

9. If from any cause the position of the distant arm should not accord with the audible signal received in the cab of the engine, it must in all cases be treated as a 'Caution' Signal, unless a handsignalman is present and exhibits a green hand signal. □

Major alterations to the East Coast Main Line; photographed by **F. C. Le MANQUAIS,** *described by* **TOM MIDDLEMASS**

The Hadley Wood Widening

Two years before King's Cross station and Gas Works Tunnel were brought into use the Great Northern Railway opened its 78 mile long main line between London and Peterborough. The first public train left from a temporary site at Maiden Lane, later known as Belle Isle, at 6.00 am on the morning of Wednesday 7th August 1850, and reached Werrington, just north of Peterborough, some 2½ hours later. There connection was made, via GNR's already established loop line, with Wakefield, Leeds, York and Hull.

Before long, however, the steady development of north London suburban traffic began to exert pressure on the GNR's main line, and as early as 1861 ideas for relieving this were being mooted. In 1875 construction of a second line running parallel with the tunnels between Wood Green and Potters Bar was approved by the GNR Board at a cost of £50,000; but, like a slightly later scheme to build a loop line from Potters Bar to link up with the High Barnet branch (this time at a cost of £292,600!), financial stringency prohibited implementation. Ironically, the 'Various Powers' Bill of 1882 offered GNR its best opportunity, i.e. authority to double the main line from Wood Green to Potters Bar. Alas, company finances could not rise to the occasion. Not yet, at least; though within the next 14 years quadruple track reached out from London as far as Greenwood Box, one mile north of New Barnet station. But the curse of double track still lay for 2¾ miles from there on — through Hadley Wood South Tunnel, Hadley Wood station (opened in 1885), Hadley Wood North Tunnel, Potters Bar Tunnel, and on to Potters Bar station, 12 miles 62 chains north of King's Cross. It was all, of course, a confounded nuisance, and time after time slow trains played havoc with fast train schedules.

Well aware that widening this bottleneck section was a matter of urgency, LNER management tackled the problem in the 1930s by securing the necessary land on the west side of the line. Nonetheless, thanks to the intervention of World War II, 1953 arrived before work on the immense project could commence. Thus, BR's opening gambit involved reconstruction of Potters Bar station and replacement of the underline bridge immediately south of its platforms.

Early in 1953 came confirmation that BTC had authorised completion of quadruple track on from Greenwood Box. Estimated cost of this vast operation, involving reconstruction of Hadley Wood station, the boring of three new tunnels, and requisite extension of colour-light signalling and track circuits, was £1,750,000. Over a mile of new tunnelling and 380,000 cubic yards of excavation would be required. Work began in the autumn of 1955, and tunnelling was completed by early 1959. Thanks to the industry and enthusiasm of a local amateur photographer, F. C. Le Manquais, we are able to witness progress, section by section, through his camera lens.

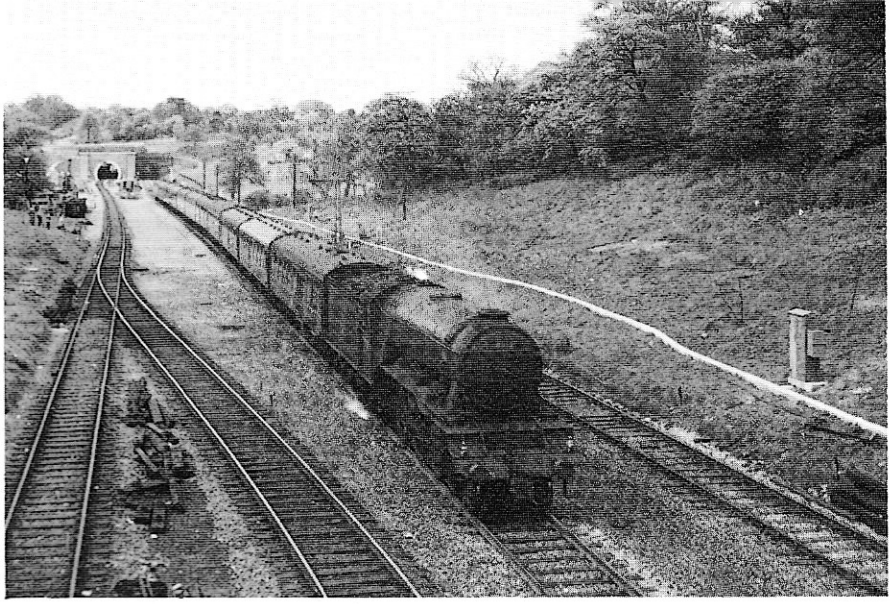
GREENWOOD BOX

The time-honoured GNR/LNER situation still obtains at Greenwood Box in April 1953, as 60013 *Dominion of Canada* **heads north on the Tees/Tyne Pullman. As can be seen, it was here that quadruple track from Kings's Cross narrowed for the next 2¾ miles to Potters Bar. Unfortunately, the down slow line ended in trap points, and could not, therefore, be legally employed by passenger trains. As a consequence many a down train had to be held up at New Barnet station, waiting its turn to go through to Potters Bar.**

By 5th April 1959 tunnelling was complete and the first of an ingenious series of rail realignments concerning the Greenwood approach to Hadley Wood South Tunnel was operative. The down slow line, now slewed behind Greenwood Box, carries on to enter the new tunnel section, and northbound expresses continue, as before, to utilise the old tunnel. A crossover between the two lines is in the process of being laid. A section of the up main, between Greenwood Box and the approaching train, has been taken up. Thus, all up trains have to use single line until it resumes double track formation on the bottom right of the picture.

By April 1959 the crossover between the two down lines had been completed. All down trains now used former down slow metals, and an appropriate length of down fast track had been lifted for deep re-ballasting and eventual renewal.

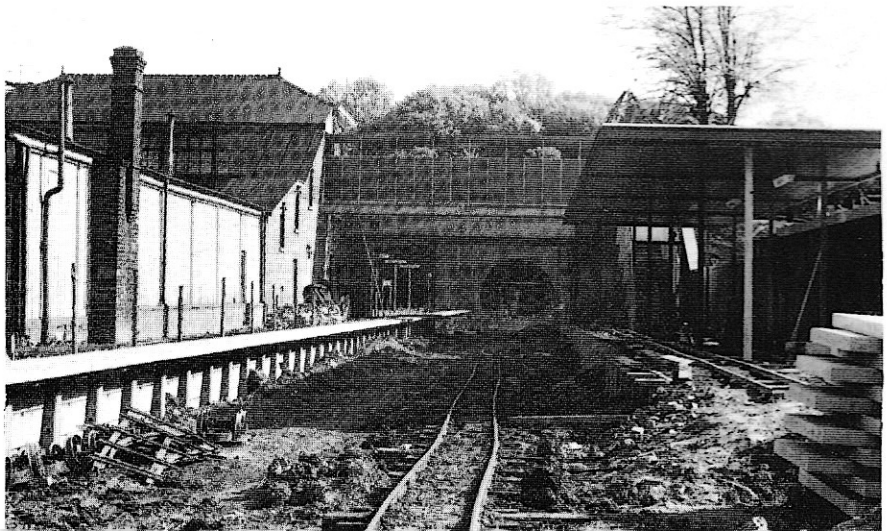
It is now 2nd May 1959, and the site, including Greenwood signal box, has been substantially cleared up. Up fast and slow trains now have a clear run, each on their own tracks, and 60062 *Minoru* heads an up Leeds express through as of yore. Soon, down fast metals will be relaid through the new tunnel.



HADLEY WOOD SOUTH TUNNEL

A desolate scene on 25th September 1957 as V2 60824 approaches Hadley Wood station with its northbound express. New Hadley Wood South Tunnel portals have been completed, but northbound access therefrom is still blocked by a great mound of spoil.

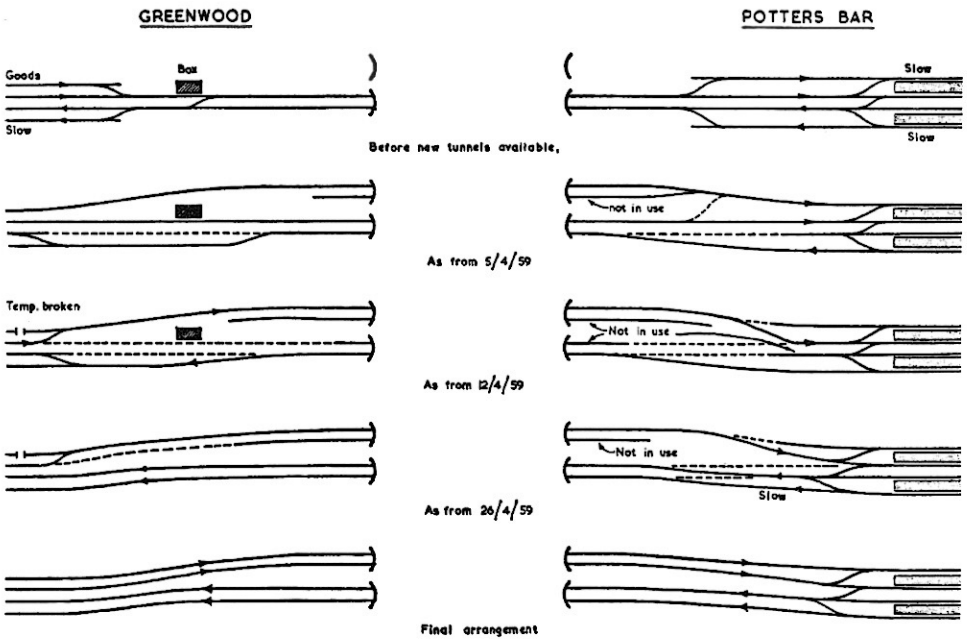
By 10th May 1958 the spoil had been cleared, Hadley Wood's new island platform anticipates future developments, and rudimentary tracks have been laid where within a year northbound expresses will hurtle through Hadley Wood station. 60028 *Walter K. Whigham* heads the up Flying Scotsman in this view.



A closer look the same day from Hadley Wood station itself, looking south, reveals the progress which is being made in reconstruction. Note how one of the contractor's lines rises to platform level to facilitate the transport of concrete slabs.

The HADLEY WOOD WIDENING

Diagrams courtesy RCTS



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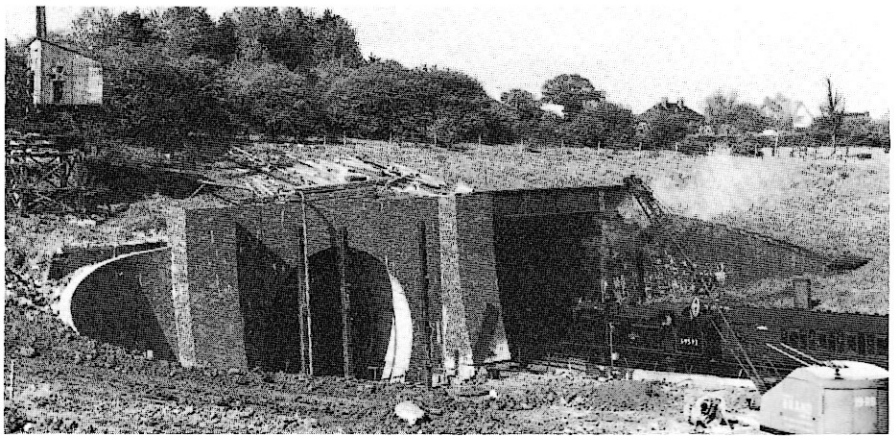
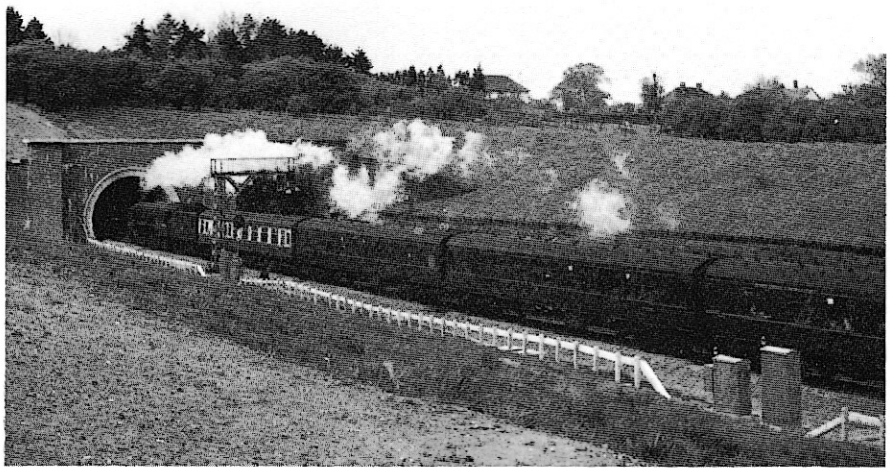
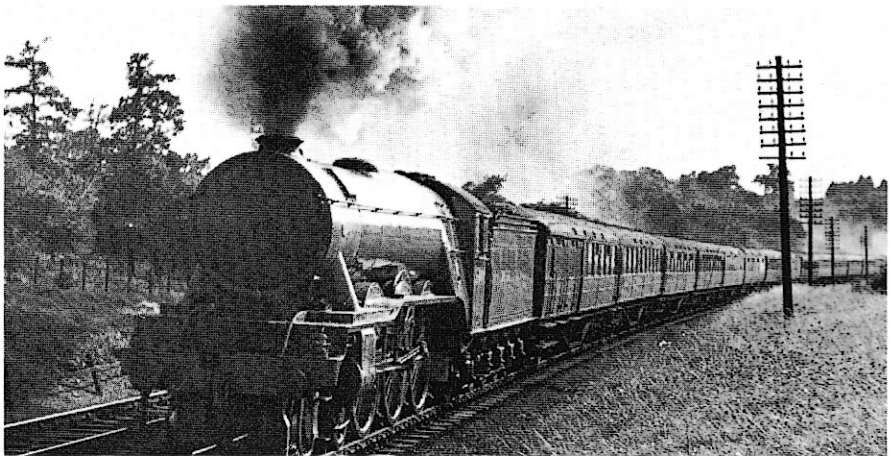


HADLEY WOOD NORTH TUNNEL

The contours of the new Hadley North Tunnel were clear for all to see by 10th May 1958, as N2 0-6-2T 69592 headed a local train towards Potters Bar, once again through the old tunnel portals.

Completion at last! The date is 2nd May 1959 and a northbound semi-fast express is able to plunge into the new tunnel at Hadley Wood North. New colour lights are also in operation.





POTTERS BAR TUNNEL & GANWICK CURVE

In this 1949 photograph the last coaches of class A3 Pacific 60107 *Royal Lancer*'s long train are just leaving the northern end of Hadley Wood South Tunnel. Again the operational nuisance created by this stretch of double track is evident.

10th May 1958 and work is well under way at the northern end of Hadley Wood North Tunnel. A whole wooded hillock has been demolished to make way for concrete production, and the white object seen behind the corrugated sheds is a container for dry cement. A powerful pile-driving crane has also been erected in the right foreground. Parallel narrow-gauge contractor's tracks wend their way up from main line level, constantly carrying spoil for dumping on meadowland further west. A train of four-wheeled dolly trucks is ready to leave the site on such a mission. The driver sits sideways on the small electric locomotive which heads it.

A little further west the narrow-gauge track rises to cross the Great North Road by temporary bridge. The chalked inscription on the nearest spoil wagon — 'Paddy's Express. Paddington-Waterford via Fishguard' — reminds us that hundreds of Irish labourers have been imported to work on the scheme.

By 7th September 1958 similar activity was well under way at the northern end of Potters Bar Tunnel. A giant crane supervises delivery of cement, a diesel hauled works train has halted at the old tunnel mouth, and a gang of labourers waits to unload the ballast it has brought.

Our last photograph, taken in recent years, demonstrates the final scene. The fact that southbound main line trains are now only subjected to 100 mph restriction through Potters Bar Tunnel speaks volumes for the enhanced operational facilities offered by the massive widening works. □

YESTERDAY'S OBSERVER

OCTOBER 1964

Little for the enthusiast to celebrate, withdrawals, closures and scrappings. From the RCTS journal 'Railway Observer'

London Midland Region

NOTTINGHAM. Victoria station was host, possibly for the first time, on 15th August to a new class when 4-6-0 6858 *Woolston Grange* arrived at 14.35 on 1N72, 08.55 Bournemouth West to Leeds, with a load of eight bogies, driven by Woodford men. An Annesley crew took over, leaving two minutes late at 14.42 and the train then continued to Sheffield Victoria arriving on time at 15.52 — the very liberal schedule of 72 minutes (which included 13 minutes recovery time) called for little effort from the locomotive but as the Annesley crew had never previously been on the footplate of a Grange their efforts were quite creditable. It is doubtful whether speeds in excess of 50 mph were achieved anywhere with the possible exception of the downhill stretch approaching Staveley Central.

The arrival at Sheffield Victoria was interesting — the lefthand cylinder on 6858 touching the platform upon arrival and a thin strip of approximately two or three feet of concrete edging was dislodged. This incident having been noted by an off-duty locomotive inspector, standing on the platform nearby, urgent calls were made to Control for a replacement engine for the onward journey but none apparently being available the Huddersfield crew, due to take over from the Annesley men, were now faced with the prospect of tackling the steep gradients to Penistone with what the driver pungently remarked as "this foreign-looking contraption"!

The rather truculent NE driver, after an inspection of this strange steed, then flatly declared his unwillingness to proceed, although his fireman — with the promise of righthand firing — was not so perturbed and renewed efforts were then made to obtain a replacement, again with no success.

Finally, some 48 minutes late and after having completely disrupted the station workings, 6858 worked north on its history making journey, driven by an ER locomotive inspector immaculately attired in blue pinstripe suit and Homburg hat, complete with briefcase, with the driver still refusing to discharge his normal duties. 6858 was noted on Hillhouse shed the following day, Sunday 16th August.

CAMBRIAN SECTION. During the week ended 29th August the 34 standard gauge locomotives allocated to Machynlleth were dispersed as follows: Machynlleth 13, Aberystwyth 7, Pwllheli 8, Penmaenpool 1, with 5 receiving or awaiting repairs. The actual locomotives at each depot vary from day to day since only Machynlleth now has facilities for washing out. The three 22XX, 2236 at Aberystwyth and 2268, 3208 at Machynlleth, were held as spare engines with no regular workings since they are not powerful enough to head the heavy summer trains, and were to be placed in store at the end of the summer timetable. It is presumed that these three engines have already worked their last revenue earning duties. 3209 withdrawn 6/64 was stored by the old coaling stage at Machynlleth awaiting inspection and eventual purchase for scrap by a contractor. The shortage of motive power during the summer season had been acute and only skilful diagramming enabled the full service to be operated.

Western Region

DETAIL ALTERATION. The last remaining Deeley 0-4-0T, 41535 (87A), has been fitted with a bell, close to the cab, for working in Swansea South Docks, believed fitted at Ebbw Jct during its recent visit there. This particular dock duty has been tried by a small diesel shunter but without success due to the number of curves involved.

1361 CLASS. 1363, the sole survivor of this saddle tank class, left the roundhouse at Laira under its own steam on 28th August, en route to its new owners, the Great Western Society, and temporary home in a contractor's yard at Totnes. Here it will join an earlier acquisition, 1466, which is in the process of being renovated, together with a Dreadnought coach which had rested for many years at Newquay.

WALES. As no trains are now banked up the nine mile incline of the 1 in 60 Sugar Loaf Mountain, the former LNWR shed, situated at the foot of the slope at Llandovery, has been closed completely.

This was mainly a banking depot having two banking diagrams, including one in the early hours of Sunday morning, and two goods trips to Craven Arms and Llandilo rostered for Cl.8Fs.

Engines employed from time to time on the banking duties have ranged from LNWR types of 0-6-0T and 0-8-4T to Fowler 2-6-4T and even Cl.8Fs and Cl.5s. The WR tried an 0-6-2T in 1952 but with little success. The last engines to bank here were BR Cl.4 2-6-4T, the three engines allocated to this duty have now been transferred to the Southern Region. Some redundancy has occurred as over twenty sets of men were stationed here and relieved crews on nearly all the goods trains.

Craven Arms shed has also lost much work through this closure; one of its main duties was banking over the Knucklas incline from Knighton which it inherited upon closure of Knighton shed in 1962.

Southern Region

DN&S LINE. Closure of the Didcot, Newbury and Southampton line duly took place on 10th August. The line is now closed completely between Enborne Junction and Winnall Sidings, just north of Winchester Chesil. The reason that the short section between Shawford Junction and Winnall Sidings remains open, is that a fair amount of steel traffic is still carried to the sidings. To convey this traffic, the 12.12 (Freight) Eastleigh to Winchester Chesil is still retained. The return working is 14.00 (Freight) Winchester-Chesil-Eastleigh. The final freight trains to run over the remainder of the line to Enborne Junction ran on 8th August, but owing to the few freight trains running on summer Saturdays, they ran during the early hours of the morning. The last down train would have been the 01.10 (Freight) Washwood Heath-Eastleigh, and the last up train the 21.35 (Freight) Fawley-Northampton tank cars on the Friday night. All freight trains have now been rerouted via Basingstoke and Reading.

Passenger trains were withdrawn on 7th March 1960, the last down train being hauled by T9 30120.

HORSTED KEYNES. Lifting of the line from Ardingly had been effected as far as Lywood Tunnel by the end of August. On 9th August the Bluebell Railway's E4 0-6-2T No.473 was at work on the demolition train, and the contractor's private diesel was also in use, though its capabilities appeared limited. The North London 0-6-0T No.2650 was back on the demolition job later in August but on 1st September *Birch Grove* appeared once more.

Eastern Region

GREAT NORTHERN SECTION. The return of the Baby Deltics has not been without interest. D5909 suffered a complete failure at Stevenage while working the 05.22 Hitchin-Kings Cross on 10th August and D5909 was replaced by D5908 at Hitchin while working the 19.50 Royston-Kings Cross on 21st. The down morning 'Talisman' was noted passing Stevenage eighty-five minutes late on the 11th with D5605 assisting D9016.

NEWARK. Delivery of the new order for Type 3s from Vulcan Foundry has now commenced and D6939/40/1 worked acceptance trials from Doncaster on 17th August, 31st August and 1st September respectively.

North Eastern Region

WITHDRAWN LOCOMOTIVES. *Hughes Bolckow Ltd, Shipbreakers, Blyth* have begun to purchase locomotives for scrap. Q6 63401 and V3 67651 were cut up during August and in their yard on 3rd September were A3 60083 and B1 61037. *G. Cohen, South Bank, Middlesbrough* purchased J94 68016 and WD 90511 during August, and it is believed that this firm has also cut up other locomotives.

Scottish Region

DUMFRIES. The withdrawal of the passenger service between Dumfries and Stranraer has now been approved by the Minister of Transport, subject *inter alia* to the Euston-Stranraer overnight service being continued by an alternative route (via Mauchline and Ayr). At present only those stations between Crossmichael and Castle Kennedy inclusive have been approved for closure, as the TUCC has not yet reported on the Dumfries-Kirkcudbright service, and the announcement of the date of withdrawal of the Dumfries-Stranraer service is not expected until the fate of the Kirkcudbright branch has been decided.

CLOSING OF BRANCH LINES. From 7th September passenger services have ceased on the Edinburgh (Waverley)-Musselburgh and Glasgow (Queen St)-Kirkintilloch services. The former has for some years been worked entirely by dmus and the latter by a mixture of dmus and locomotive-hauled trains which have offered one of the infrequent, if little sought-after opportunities of travelling behind the D6100-37 series of NBL Type 2 diesels. □

UFFCULME

For generations, the two most significant buildings in a British town or village were its church and its station. One moved people spiritually, the other physically, but by the 1960s both were in retreat. Uffculme, seen here just before closure, was sited on the Culm Valley branch in Devon, noted for its severe curvature and resulting short-wheelbase coaching stock. Passenger traffic ceased from 9th September 1963 but freight serving a mill and dairy continued until 1975. Photo: Roy Hobbs

BR PACIFIC 72009

The 1952-built, Derby-designed Clans were intended to replace pre-Grouping locos in Scotland. Unexpectedly heavy coal consumption led to curtailment of the programme and only ten engines were built. Apart from trials by 72009 on the ER, the class worked solely on ScR, their last shed before extinction in May 1966 being Carlisle Kingmoor, where *Clan Stewart* was photographed in September 1962. Photo: G. Rixon

LETTERS

TANK WAGONS

May I make a few additions to D. P. Rowlands' informative paper on tank wagons in the Winter issue, as my memory goes back a mite further than his! First of all, Royal Daylight wagons. I, too, don't remember ever seeing one. Royal Daylight was paraffin, and retailed mostly in rural areas without electricity. My recollection of a village shop in wildest Norfolk in the early 30s is that it was delivered to the retailer in 5 or 10-gallon drums which were probably packed at the refinery. The RD firm, however, was a prolific advertiser, and may have given Hornby's some financial inducement to bring out a model painted in their colours.

Next, wartime usage of tank wagons. It is a mistake to think that PO liveries, whether of tankers or coal wagons, disappeared overnight on the outbreak of war in 1939. Indeed, there were noticeable numbers of them about even at the end of hostilities in 1945. Most were of very unkempt appearance, as wartime maintenance was pretty basic, and painting was virtually a non-event. The word "POOL", painted or stencilled on a tank side would have referred to the contents, not the user arrangements for the vehicle. So-called "Pool" petrol was relatively low in octane rating, and distributed under the wartime rationing scheme to civilian users and the armed forces, but the RAF had to have other, higher-octane fuel for its aircraft.

From late 1942 onwards, large numbers of high-capacity bogie fuel tank wagons were being built in the USA and shipped to Britain for use on the Continent, once the invasion of Northern Europe was underway. Their accommodation in this country presented some problems, and I remember, while on manoeuvres in the Colchester area in mid-1943, seeing an enormous rake of them parked on the long-disused section from Tollesbury to Tollesbury Pier, of the Kelvedon-Tollesbury Light Railway. They were of pretty basic design, and painted in a sort of yellowish khaki, rather like the colour of the ARC roadstone wagons seen on BR nowadays. They were shipped to France through Cherbourg, once that port had been captured in 1944. When no longer required by the military, they were given to UNRRA (United Nations Relief and Rehabilitation Administration), and for all I know, some may be knocking around Europe to this day.

Another type of wagon not mentioned by Mr Rowland is the road/rail milk tank. These were large, hygienic-looking unpainted aluminium and glass-lined tanks mounted on four road wheels, with a towbar. They were taken round to the dairy farms to be filled, then end-loaded on to a flat truck at a station equipped for such an operation, and despatched thence to a processing plant. Many of these had a direct rail connection, so that the tank need not be offloaded before being emptied. I believe they were owned or leased, not by the big companies such as United Dairies or Express Dairies, but by the Milk Marketing Board. Perhaps a reader may be able to confirm this?

Lastly, there were the railways' own service vehicles. Gas tanks spring immediately to mind, though by nationalisation they had, I think, virtually disappeared, and indeed were uncommon by 1939. An ex-SE&CR one could usually be seen at Blackheath carriage sidings, in SE London, up to about 1932, and I photographed a M&GN example at Melton Constable in April 1939. In addition, there were tankers for creosote to be used for sleepers, and others for weedkiller solutions. The Southern Railway usually adapted old loco tenders for track spraying, but they used two tank wagons of orthodox design in the Isle of Wight for the purpose. The GWR had some water-tank wagons, but whether they were intended for use in connection with weedkilling I do not know. Here again, perhaps another reader has the information.

At all events, may we hope to have more from Mr Rowland, who is exploring in comparatively uncharted waters?

Peter Erwood, Fleet Hargate, Lincs

REVEALING SIGNS

I was interested to see the photographs on page 166 of the winter issue, particularly the one of the signs at Halton station. However, close inspection of the poster shows an unexpected aspect — apparently Coventry was then served by the London Midland Railway!

Incidentally, the tile map at Beverley is still in place at Beverley station, which is currently undergoing major repairs to its overall roof.

R. W. Beamer, Beverley

DRIVING WHEELS

The Photofile feature in the Winter issue continues the very high standard we have come to expect of BACKTRACK, but I would take issue with the statement on p.185 that the County's 6′8½″ diameter driving wheels were the largest ever fitted to a tank engine. I can think of at least five designs, one of which, admittedly, was a short-lived and unsuccessful experiment, which had larger driving wheels than this. They are:

1853 Bristol & Exeter 4-2-4T, broad gauge, Pearson (9′0″)
1868 Bristol & Exeter 4-2-4T, broad gauge, Pearson (8′10″), rebuilt as tender locos 1877
1881 GWR 4-2-4T, standard gauge, Dean, experimental (7′8″)
1907 LB&SCR 4-4-2T, Marsh, 13 Class No.21 (6′9″)
1914 LB&SCR 4-6-4T, Billinton, rebuilt as 4-6-0 tender locos 1934-36 (6′9″)

I suspect that this list may not be exhaustive even if one confines one's researches to standard gauge British prototypes. In the mid to late nineteenth century express passenger locomotives that had been downgraded to slower work were occasionally converted to tank engines, and it is not impossible that examples of these may have had larger driving wheels than the County tanks.

David Burton, Telford

REAL OR IMAGINARY?

It was nice to get the last issue of BACKTRACK which had a good balance of subjects and particularly as it had a real engine on the front cover!

I would like to draw your attention to p.165 where you say re the V1s and V3s that they "... were once used on the GE, GN and GC sections." This is not strictly true. Fifteen of them were used on the GE from 1938 to 1950/1 so your reference to that section is correct. However, apart from trial runs from Kings Cross and Ardsley between April and July 1931, none ever worked regularly on the GN. Similarly, apart from four which worked from Neasden for a short while in 1943, none ever worked regularly on the GC.

On p.185 the loco in question is a County tank of 4-4-2 wheel arrangement. There were 2-4-2 tanks around at that time but even I can recognise the difference, which is saying something where the GW is concerned!

J. F. Aylard, Barnet

SAXBY'S BATTLES

I was most interested to read the article by Tim Warner on the Battles of Saxby, as I live very close to Stapleford Park and have been researching the Syston & Peterborough line for a book.

Readers may not be aware of another railway connection with the park; when Lord Gretton acquired the park, he built a very extensive 10¼ inch gauge miniature line around the grounds, the running of which was later taken over by his son. I spent several happy years working on this line at weekends, and often imagined what the reaction of the 6th Earl would have been if he could have seen steam locomotives running around his lake and through the deer park! The 10¼ inch line is no more, alas, as the Hall has been sold as an exclusive hotel and restaurant, though the locos will no doubt find a home elsewhere in time.

The Cuckoo plantation is much as ever it was, and to this day a slight depression marking the line of the collapsed tunnel can be made out during the winter. Had the line been opened along this route, one wonders where the junction with the line to Little Bytham and the M&GN would have been made, and where Whissendine station would have been sited.

Before I finish, if anyone has pictures of Whissendine station before closure in 1955, or just after, I would be delighted to hear from them.

Peter Smith, Rutland

COACHING STOCK

David Jenkinson's history of the British railway carriage in BACKTRACK managed to cover a great deal of ground very concisely. While, from the look of the thing, I was not altogether surprised that he credited the design of the bar car (p.182, upper) to Oliver Bulleid, in fact he had nothing to do with it. It was a Pullman — the original Trianon bar, installed (somewhat improbably) in the 1917-built 12-wheeler Car No.5 Third Class for service in the 1946 Golden Arrow. The decor, pink and grey plastic panelling, is quite ghastly, I agree — although doubtless, at the time, it seemed to point the way forward to a brave new world.

Charles Long, Leatherhead

I was very interested to read David Jenkinson's article on coaching stock construction in the latest edition of BACKTRACK. To a rather non-technical person like me it was most enlightening, and I am sure many will feel indebted to your magazine for explaining these matters in such detail.

However, when he writes of buck-eye couplings, one sentence rang a bell and makes me raise a query. I recall being on Newcastle station many times in the mid 1950s. In would come a down express — the down Flying Scotsman was the most obvious example. A locomotive such as a Grantham A1 Pacific would uncouple, and we awaited the new engine. If what appeared round the corner from the High Level Bridge was the back of the corridor tender of a Haymarket A4 (which was the usual loco on this turn), then a shunter would jump down onto the track. He would lift up the buck-eye hook on the first carriage, and lock it into its working position; he would then remove the "collars" from the buffers, and the A4, with its buck-eye hook clearly visible at the back of the tender, would back on and couple up. Maybe this was the only instance of a BR loco (steam or otherwise) that did this, but I certainly recall that the statement about swinging the front carriage's buck-eye hook out of the way when a locomotive was to be attached, was not always true. Indeed, as some of these tenders still exist, I wonder whether these couplings still do. But I clearly recall the ritual of the modification of the front coupling to attach a corridor tender Haymarket A4.

Peter Cooper, Ealing

David Jenkinson replies: Mr Long is quite right. The picture was a former SR official view, simply captioned 'Buffet Car'. Mr Cooper is also correct — I had forgotten the buckeyed LNER corridor tender but I believe this was the only type so fitted. □

BackTrack

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b) Black and white photos Please don't send large selections of monochrome photos of moving trains or locos from the 1950-75 period — we only require *colour* from this period. Comprehensive photo portraits of a *particular* subject (shed, station, etc) are, however, required and we are very keen to see material from the pre-nationalisation, pre-grouping and 19th century periods.

c) Colour photos BACKTRACK is setting new standards in its presentation of historic colour photographs. If *you* have any colour transparencies (slides) taken in the period 1935-75 we would be delighted to hear about them. We pay generous rates for the right to publish, and this process does not affect the slide in any way and you receive it back promptly after use. And don't worry about its safety — Atlantic has handled thousands of irreplaceable slides in the last few years without loss or damage — our new high-tech process sees to that (the slide does not go to the printers at all). Why not submit a few samples from your collection? Ring or write first if you wish.

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ALSO: April 1960, and the Paddington-Swansea Blue Pullman in the classic Great Western setting of Sonning Cutting. Photo: Peter Hughes

BACK COVER: Chinley South Junction in Christmas card condition, 3rd February 1968. Due to problems in Doveholes Tunnel, single line working was in force. Prior to continuing, LMS 8F 2-8-0 48442 drew forward before reversing onto the down line and working 'wrong line' to Peak Forest. This and subsequent manoeuvres gave enterprising photographers ample opportunity for pictures in this last year of steam. Photo: Derek Huntriss

Atlantic

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